State of California

THE RESOURCES AGENCY

Department of Water Resources

BULLETIN No. 130-63

HYDROLOGIC DATA: 1963

Volume I: NORTH COASTAL AREA

MAY 1965

HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
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ORGANIZATION OF BULLETIN NO. 130 SERIES

Volume I - NORTH COASTAL AREA

Volume II - NORTHEASTERN CALIFORNIA

Volume III - CENTRAL COASTAL AREA

Volume IV - SAN JOAQUIN VALLEY

Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

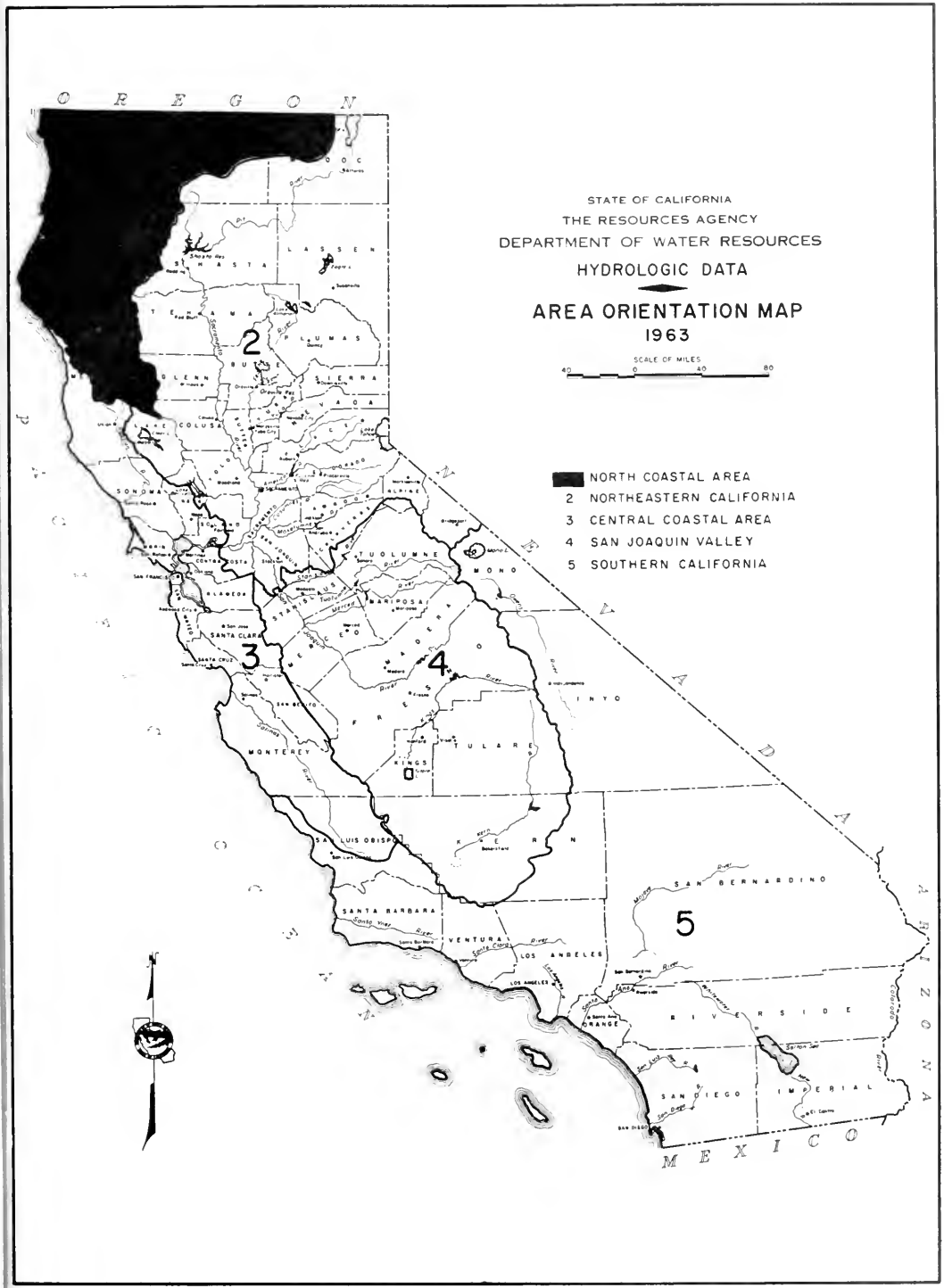
Appendix A - CLIMATE

Appendix B - SURFACE WATER FLOW

Appendix C - GROUND WATER MEASUREMENTS

Appendix D - SURFACE WATER QUALITY

Appendix E - GROUND WATER QUALITY


STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
HYDROLOGIC DATA
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1963
SCALE OF MILES
40 0 40 80
NORTH COASTAL AREA
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3 CENTRAL COASTAL AREA
4 SAN JOAQUIN VALLEY
5 SOUTHERN CALIFORNIA
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NEVADA
ARIZONA
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5
SHASTA
LASSEN
PLUMAS
BUTTE
SIERRA
GLENN
COLUSA
SONOMA
YUBA
NEVADA
PLACER
EL DORADO
AMADOR
CALAVERAS
TUOLUMNE
MARIPOSA
MONO
INYO
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KINGS
TULARE
KERN
MONTEREY
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TE OF CALIFORNIA—RESOURCES AGENCY
EDMUND G. BROWN, Governor
PARTMENT OF WATER RESOURCES
. BOX 388
ARAMENTO

March 8, 1965

Honorable Edmund G. Brown, Governor,
and Members of the Legislature of
the State of California

Gentlemen:

The Bulletin No. 130 series of reports incorporates data on surface water, ground water, and climate previously published annually in Bulletins No. 23, 39, 65, 66, and 77. With the inauguration of the new series, publication of the earlier reports is suspended.

Bulletin No. 130 will be published annually in five volumes, each volume to report hydrologic data for one of five specific reporting areas of the State. The area orientation map on page iii delineates these areas. Page ii outlines the organization of the bulletin, its volumes and appendixes.

This report is Volume I, "North Coastal Area". It includes a text which summarizes hydrologic conditions in this part of California during the 1963 water year (October 1, 1962 through September 30, 1963) and five appendixes of detailed hydrologic data: Appendix A, "Climate", Appendix B, "Surface Water Flow", Appendix C, "Ground Water Measurements", Appendix D, "Surface Water Quality",and Appendix E, "Ground Water Quality".

The collection and publication of data such as is contained in Bulletin No. 130 is authorized by Sections 225, 226, 229, 232, 345, 12609, and 12616 of the Water Code of the State of California.

The basic data programs of the Department of Water Resources have been designed to supplement the activities of other agencies, in order to satisfy specific needs of this State. Bulletin No. 130 is designed to present useful, comprehensive, accurate, and timely hydrologic data to the public.

Collection of much of the data presented has been possible only because of the generous assistance of other agencies. I wish especially to acknowledge the help given by agencies whose measurements directly contributed to Bulletin No. 130-63. They include the United States Bureau of Reclamation, Corps of Engineers, Geological Survey, Forest Service, and Weather Bureau, the California Department of Public Health, and the California Disaster Office.

Without the data supplied by these people, Bulletin No. 130-63 should have been much less the valuable tool it is today.

Sincerely yours,

William E. Warne

Director

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

EDMUND G. BROWN, Governor
HUGO D. FISHER, Administrator, The Resources Agency
WILLIAM E. WARNE, Director, Department of Water Resources
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- - - - O - - - -

NORTHERN BRANCH

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Stewart L. Struchen . . . . . .Water Quality

Reviewed and coordinated by
Division of Resources Planning
Data Coordination Section

CHAPTER I. HYDROLOGIC CONDITIONS: 1962-63

The climate of California is unique in many respects. Land forms throughout the State differ widely, setting California apart from adjacent areas. California does, in fact, span all of the dissimilarities of climate and topography from the arid plateaus of the Great Basin to the marshy tidelands of the Pacific. California climate is fostered by a balance between the varied land masses and the turbulent seasonal storms of the Pacific Ocean.

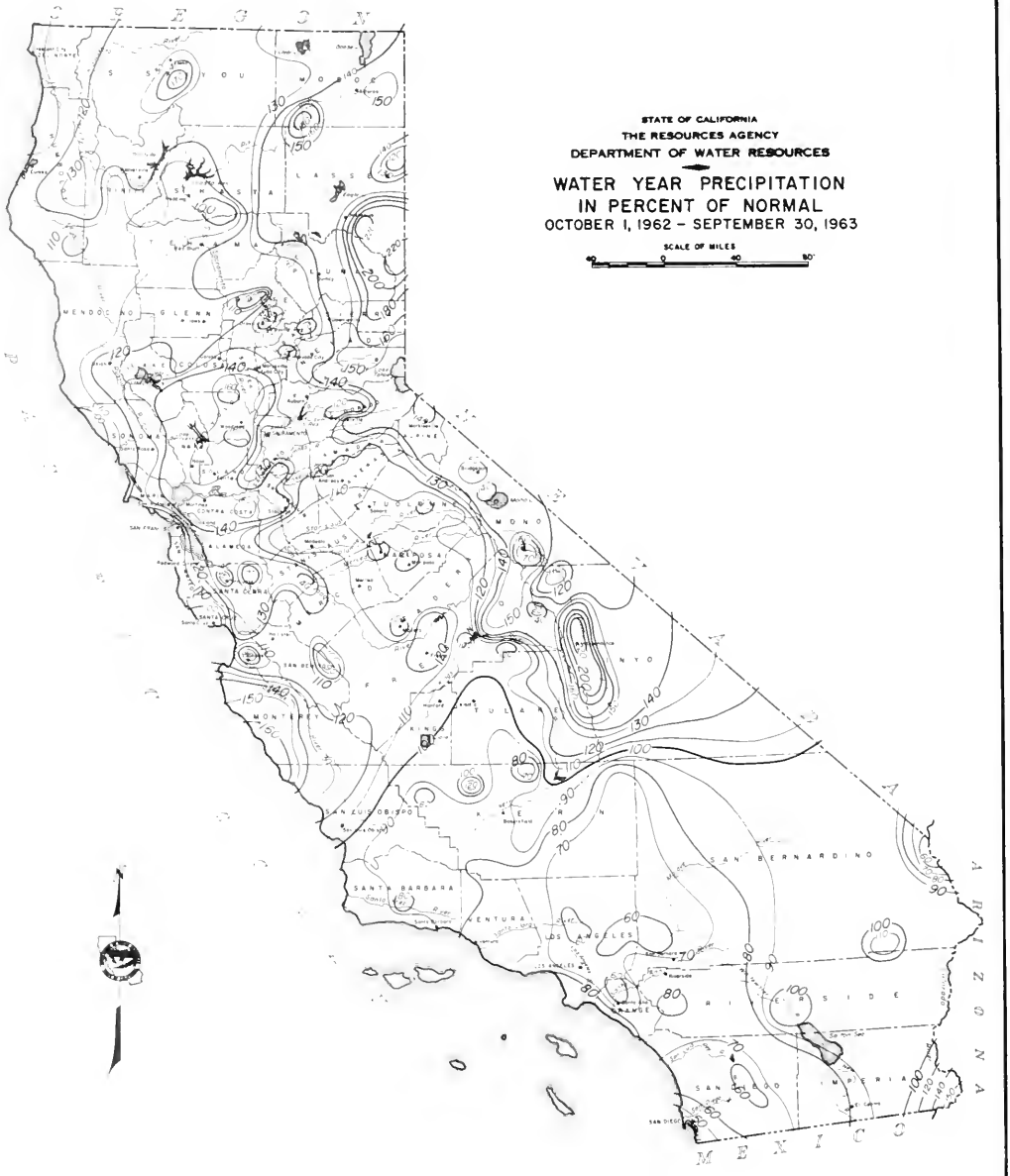
The Sierra Nevada and the Cascade Mountains, forming the eastern border of the Great Central Valley, receive much of their rainfall from the lifting of the maritime air masses. Interior lands of southern California are shielded from these masses by the transverse mountain ranges and the southerly extension of the coastal range. The 1963 water year is typical of the extreme variability of weather conditions that normally occur in California.

Statewide Conditions

On a statewide basis the 1963 water year was near normal. However, extreme conditions occurred in certain regions. Figure 1, showing 1963 water year precipitation in percent of normal, indicates that although normal annual precipitation amounts were recorded in the latitude of San Luis Obispo and Bakersfield, annual precipitation south of that latitude ranged to less than 50 percent of normal in the vicinity of San Diego. It ranged to greater than 150 percent of normal near the Oregon border.

In mid-October a series of storm waves drenched northern California, Oregon, and Washington. Rivers in northern California were at near flood stage; and the Feather River at Oroville reached the highest October peak

FIGURE 1


STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER YEAR PRECIPITATION
IN PERCENT OF NORMAL
OCTOBER 1, 1962 – SEPTEMBER 30, 1963
SCALE OF MILES
40 0 40 80
OREGON
NEVADA
ARIZONA
MEXICO
SISKIYOU
MODOC
LASSEN
PLUMAS
SIERRA
TRINITY
MENDOCINO
GLENN
BUTTE
SHASTA
TEHAMA
LAKE
SONOMA
NAPA
YOLO
SUTTER
YUBA
NEVADA
PLACER
EL DORADO
ALPINE
AMADOR
CALAVERAS
TUOLUMNE
MONO
SAN FRANCISCO
ALAMEDA
SAN MATEO
SANTA CLARA
SAN JOAQUIN
STANISLAUS
MERCED
MADERA
FRESNO
INYO
MONTEREY
SAN BENITO
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TULARE
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SAN DIEGO
IMPERIAL

flood of record, inundating construction work at the Oroville dam site. Southern California remained dry. A mid-winter drought followed, setting new records for lack of precipitation and for continuous days of fog in the Central Valley. Again, southern California was dry.

The drought was broken by a three day downpour at the end of January. Again, flood conditions prevailed in northern California and some areas, particularly in the upper Yuba River basin, suffered from serious flooding. Much of southern California received moderate rainfall.

During April, northern California was covered by a series of storms; rainfall was moderate but continued for nearly two weeks. The April rains, along with record late season snowfall during May built up snowpacks and assured a normal potential water supply during the summer. Southern California received some precipitation, but the below normal trend persisted. This trend has continued since 1941.

Other hydrologic conditions also showed abnormal responses. Streamflows alternated between extreme highs and lows, but the average flows during the summer were about normal. With the recurring threat of floods, the operation of reservoirs was difficult. The amount of water stored in reservoirs at the end of the 1963 water year was generally greater than the previous year. Still, an excessive amount of winter rain wasted to the ocean. In southern California both surface runoff and reservoir storage were below normal.

Ground water conditions followed the pattern of precipitation. In the northern part of the State, ground water storage generally increased. However, due to the distribution of the precipitation, the increase in stored ground water was less than expected in some areas. Throughout southern California precipitation was well below normal and ground water levels continued to drop.

North Coastal Area Conditions

The North Coastal Area extends southward from the Oregon state line, approximately 300 miles, to the northernmost boundary of the Russian River drainage and is further delineated by the westerly and northerly boundary of the Sacramento River drainage. The area's eastern limits include the Lost River-Clear Lake drainage. The area, as shown on "Area Orientation Map", comprises the major part of Water Pollution Control Board Region No. 1, excluding the Russian River Basin and the coastal area south of the Mattole River drainage.

The topography of the area is largely mountainous including the western slope of the Coast Ranges, the Trinity and Klamath Mountains, a portion of the Cascade Mountains, and the westerly portion of the Modoc Plateau. While the Klamath, Trinity, and Eel Rivers are major drainage systems within the area, there are a number of other large streams that are of local importance.

Local economic development is primarily based on the lumbering and wood products industry and agriculture. However, the tourist and recreational trade has recently assumed a key role in the plans of local communities. The area's beautiful scenery and recreational activities such as fishing, hunting, and camping are becoming prominent factors in the economy. These activities are directly concerned with the quantity and quality of surface waters in the more widely used areas.

The climate of the North Coastal Area is conducive to the extensive forest cover found throughout most of the area and in elevated areas in the Modoc Plateau. Climate ranges from humid, averaging 100 inches of precipitation annually, in the mountains along the coast to semiarid, with an average of 15 inches of precipitation annually in the Modoc Plateau. Summers are

normally cool and dry, while winters are cold with heavy rain and some snow.

Precipitation in the North Coastal Area was generally above normal for the report period, from July 1, 1962 to June 30, 1963. It varied from 200 percent of normal in Siskiyou County to near normal in Mendocino County.

Streamflow was extremely high during April 1963, making the 1962-63 water year the second highest year, as far as runoff is concerned, during the seven-year period from 1956-57 through 1962-63.

Unimpaired runoff of major streams in the North Coastal Area during the 1962-63 water year averaged about 135 percent of normal. Department gaging stations have recorded streamflows for a relatively short time, and no long-term mean average runoff values have been developed. It is safe to say, however, that the relative magnitude of the runoff from gaged areas closely approximates that of the major streams in the North Coastal Area.

The use of ground water in the North Coastal Area is relatively small and is not a major factor in the evaluation of the potential water supply.

There was no marked change in ground water levels during 1962-63. Though streamflow and precipitation were above normal, the intensity of precipitation was high and the duration low, factors not conducive to greater infiltration of water. Figure 2 summarizes some measured values in basins of the area.

Surface waters throughout the area are normally low in mineral content and are generally satisfactory for all uses. As is common in most streams, concentrations of dissolved minerals increase with a decrease in streamflow.

No definite trends of surface water quality in North Coastal area streams were noted during the 1962-63 water year. Boron concentrations in Outlet Creek (located in the upper Eel River watershed) ranged from 1.0 to

1.6 ppm between July and September 1963, but were substantially lower than September 1962 (3.1 ppm) or September 1961 (4.2 ppm, maximum of record).

Quality conditions of ground water sources monitored during 1963 were generally excellent and show little change from 1962. The principal exception is the partially degraded ground water in the lower Eel River Valley near the mouth of the Eel River. Three wells of the ten sampled in the Eel River delta area during the past few years have shown a fairly large chloride concentration, suggesting a problem of sea water intrusion.

CHAPTER II

HYDROLOGIC DATA

PROGRAM ACTIVITIES

CHAPTER II. HYDROLOGIC DATA PROGRAM ACTIVITIES

The Department of Water Resources is concerned with the development and use of water supplies, and with the methods that are employed to observe and measure hydrologic conditions. Hydrologic data are used for the planned development of new water supplies, hydropower, drainage, flood control, navigation, and other associated engineering projects. The Department's basic data programs have been designed to supplement and augment other agencies' activities to fulfill the specific needs of the Department and the State.

Climate

Climatologic data collected by the Department include information on precipitation, temperature, and evaporation. Both surface flow and recharge to ground water vary in direct response to precipitation. Evaporation is an important part of the consumptive use of water and, with other climatological events, affect conditions and use of a water supply.

Table A-1 contains a listing of all active climate stations in the North Coastal Area during the 1962-63 report period which covers the period from July 1, 1962 through June 30, 1963. Measurements of precipitation, air temperature, evaporation, and corresponding data are shown in Tables A-2, A-3, and A-4 in Appendix A, "Climate".

Surface Water Flow

Hydrographic data activities, augmented by the climate data program, supplement streamflow observations carried on by the U. S. Geological Survey. The Department's program consists of both field and office work. Field activities in the North Coastal Area include construction and maintenance of streamflow gaging stations and measurement of flow in the larger streams.

Office work includes the preparation of hydrographic data for computation by electronic computers. Instantaneous stream discharge, mean discharge, and stage are normally obtained.

The Department operates eight stream gaging stations in the North Coastal Area. Two were installed during the 1956-57 water year, five in 1957-58, and one in 1960-61.

Plate 3 shows the location of surface water measurement stations in the North Coastal Area for the reporting period which covers the water year from October 1, 1962 through September 30, 1963. Tables B-1 through B-8 present daily mean discharge records at each station during the water year.

Ground Water Measurements

Ground water is the source of supply for the major portion of water beneficially used in California. However, the use of ground water in the North Coastal Area is less extensive than in other areas of the State. Data on the current status of the major ground water basins is collected and processed within the framework of the Department's Ground Water Measurement Program. Field measurements are made by the U. S. Geological Survey. The review, processing, and editing of the data is performed by the Department.

Nine local ground water basins or areas are measured on a monthly basis by the U. S. Geological Survey for the report period from July 1, 1962 through June 30, 1963. Locations of the basins measured are shown on Plate 4 and results of the measurements are presented in Table C-1 of Appendix C. In addition, a summary of the average change in ground water levels is given in Figure 2. Since only a few wells are measured in any of the monitored ground water basins, it is difficult to derive meaningful values for the average changes in water level elevations.

FIGURE 2
AVERAGE GROUND WATER LEVEL CHANGES
IN NORTH COASTAL AREA BASINS
SPRING 1962 - SPRING 1963

Ground Water Basin		Number of Wells Considered in Analysis	Average Ground Water Level Change 1962 to 1963, in feet	Location and Recorded Maximum and Minimum Depth to Water Spring 1963, in feet	
Name	Number			Maximum	Minimum
Smith River Plain	1-1.00	4	-1.2	17N/01W-02P01 18.4	16N/01W-02J01 14.8
Butte Valley	1-3.00	5	+2.1	46N/01E-06N01 20.8	47N/01W-07B01 9.7
Shasta Valley	1-4.00	6	+0.2	44N/05W-34H01 28.1	43N/06W-22A01 2.9
Scott River Valley	1-5.00	4	+3.3	42N/09W-08C03 28.6	42N/09W-27N01 3.1
Mad River Valley	1-8.00	2	-1.0	06N/01E-29P01 9.0	06N/01E-06H01 2.6
Eel River Valley	1-10.00	3	-1.0	03N/01W-34J01 32.3	03N/01W-18D01 3.3
Round Valley	1-11.00	4	-0.3	23N/13W-36C03 8.2	23N/13W-36Q01 2.4
Laytonville Valley	1-12.00	2	-0.6	21N/15W-12M02 7.2	21N/15W-24A01 1.6
Little Lake Valley	1-13.00	3	+0.3	18N/13W-18E01 21.0	18N/13W-08L01 0.4

Water Quality

Water quality is a measure of the characteristics of a water supply that affect the usability of the water. As greater demand is placed on available water supplies more effective use and reuse of the State's water becomes necessary. Since quality may limit the usability of a water, knowledge of quality conditions is necessary for the most efficient use of water supplies.

Surface Water

During the 1962-63 water year, twenty-four stream locations were monitored on a monthly basis for water quality including mineral, bacteriologic, and radioassay analyses. Twice a year samples from eight selected stations were subjected to spectrographic analysis to determine concentrations of trace elements.

Samples were taken from the larger streams in the North Coastal Area and locations of the sampling stations is shown on Plate 5. Table D-1 is an index to sampling station data. Table D-2 presents analyses of mineral and other selected constituents. Table D-3 presents the spectrographic analysis for trace elements, and Table D-4 presents radioassays.

Ground Water

During the 1962-63 water year, samples were collected and analyzed for 76 ground water sources. The nine basins sampled in this program are shown on Plate 4, "Ground Water Basins in North Coastal Area". Normally the sampling period is from June through September.

The samples were analyzed for mineral constituents and some trace elements. Table E-1 presents the observed values from the ground water quality analyses.

APPENDIX A

CLIMATE

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TABLES

The Department of Water Resources cooperates with the U. S. Weather Bureau and local agencies in the collection of climatological data. Climatological data programs are dependent, for the most part, on the cooperation of local observers. Data from selected key stations are published by both the Department and the U. S. Weather Bureau.

The tables in this appendix include total monthly and seasonal precipitation; monthly temperatures showing absolute maximum, average maximum, average, average minimum and absolute minimum temperatures: and evaporation data showing the total evaporation for each month of the 1962-63 fiscal year.

Most of the stations use standard meteorological equipment. Commonly accepted procedures are employed in summing up monthly totals and computing mean values. In the preparation of the mean seasonal isohyetal map (Plate 2) the long term mean values are based on the 50-year mean period 1905-06 to 1954-55, for those stations with sufficient length of record. At other stations all available records are used in determining the mean. Station density in the North Coastal Area is adequate for making reasonable estimates of average conditions over extended areas, with the possible exception of the areas in the higher altitudes.

A description of the tables and plates included in this appendix follows:

Table A-1, "Index of Climatological Stations", contains a listing of all active climatological stations in the North Coastal Area during the 1962-63 fiscal year. The station names are arranged in alphabetical order. Each station is given a code number which is composed of two parts -- a drainage basin designation, and an Alpha Order Number

which corresponds to the alphabetical sequence of the station with respect to the other stations in that drainage basin. A sub-number of two digits is occasionally affixed to the four digit Alpha Order Number. This is to provide for greater flexibility as new stations are added to the listing. The cooperator index number is used when the Alpha Order Number is in conflict with the U. S. Weather Bureau number.

Certain other information is also given, including the year in which the record was begun, the year the record ended and the years of missing record. The code for the county in which the station is located is shown below:

County	Code
Del Norte	08
Humboldt	12
Mendocino	23
Modoc	25
Siskiyou	47
Trinity	53

Table A-2, "Precipitation Data", contains a listing of all precipitation measurements collected in the North Coastal Area during the 1962-63 fiscal year. The listing is in alphabetical order by station name. The table includes a summary of total seasonal precipitation and lists each monthly amount for the 1962-63 fiscal year.

Table A-3, "Temperature Data", describes unpublished air temperature data collected by the Department of Water Resources in the North Coastal Area. The stations are listed in alphabetical order. A listing by drainage basin and Alpha Order Number is also given. A column titled "Season" summarizes the extreme values of temperature reported at each station and also lists the mean of the monthly values. The absolute maximum, average maximum, average, average minimum and absolute minimum monthly values are given for each station, and are based on 1962-63 data.

Table A-4, "Evaporation Data", describes the data collected from all evaporation stations in the North Coastal Area. This information is used to determine loss of water by evaporation from existing and proposed water storage and conveyance facilities. The stations are listed alphabetically. The table includes a listing of drainage and Alpha Order Numbers corresponding to the station names. Total evaporation is shown for each month during the 1962-63 fiscal year.

Plate 1, "Climatological Observation Stations, North Coastal Area", shows the locations of all actively reporting climatological stations in the North Coastal Area. These include the U. S. Weather Bureau stations reported in the U. S. Department of Commerce monthly publication, "Climatological Data", and many stations operated by cooperative observers. A legend on the map describes the symbols used for the various types of measuring equipment and observations made.

Plate 2, "Distribution of Mean Seasonal Precipitation in North Coastal Area", shows the rainfall pattern over the North Coastal Area. Lines of equal mean seasonal precipitation are drawn to define the normal amounts. The lines represent normals based on a 50-year mean period of 1905-06 through 1954-55.

TABLE A-1

INDEX OF CLIMATOLOGICAL STATIONS FOR 1962-63

NORTH COASTAL AREA

Station Number	Station Name	Elevation (in feet)	Section	Township	Range	40-Acre Tract	Base & Meridian	Latitude ° ' "	Longitude ° ' "	Cooperator Number	Cooperator's Index Number	Record Began	Record Ended	Years Missing	County Code
F6 0018	ADANAC LODGE	1100	SEC 14	T23N	R17W	H	M	39 50 48	123 42 00	000		1950			23
F6 0088	ALDERPOINT	435	SEC 27	T03S	R05E		H	40 11 00	123 36 00	900		1940			12
F5 0253	ARCATA A P	200	SEC 19	T07N	R01E	Q	H	40 58 18	124 05 24	000		1957			12
F3 0715	BESWICK 7 S	6140	SEC 33	T47N	R03W		M	41 52 00	122 14 00	900		1952			47
F4 0738	BIG BAR RANGER STA	1270	SEC 05	T33N	R12W		M	40 44 54	123 14 42	900		1943			53
F5 0764	BIG LAGOON	100	SEC 18	T09N	R01E	R	H	41 09 36	124 05 54	000		1958			12
F2 0786-01	BIG SPRINGS 4 E	2955	SEC 05	T43N	R04W	R	M	41 35 30	122 19 42	000		1960			47
F3 0899	BLUE CREEK MTN LO	4870	SEC 30	T12N	R04E	R	H	41 23 42	123 45 54			1960			08
F5 0901	BLUE LAKE	105	SEC 30	T06N	R02E	A	H	40 52 54	123 59 12	000		1951			12
F5 0903	BLUE LAKE REDWOOD CR	975	SEC 11	T06N	R03E		H	40 55 00	123 49 00	900		1956			12
F6 1046	BRANSCOMB 2 NW	1480	SEC 09	T21N	R16W	M	M	39 41 12	123 39 36	900		1959			23
F1 1050	BRAY 10 WSW	5759	SEC 24	T43N	R03W		M	41 34 00	122 08 00	900		1951			47
F6 1080	BRIDGEVILLE 4 NNW	2050	SEC 27	T02N	R03E		H	40 31 00	123 49 00	900		1954			12
F6 1083	BRIDGEVILLE P O	650	SEC 11	T01N	R03E	O	H	40 28 06	123 48 00	000		1959			12
F6 1181	BULL CREEK	410	SEC 36	T01S	R01E	H	H	40 21 00	124 06 30	000		1960			12
F6 1210	BURLINGTON ST PARK	200	SEC 12	T02S	R02E	D	H	40 18 30	123 54 24	000		1950			12
F4 1215	BURNT RANCH 1S	2150	SEC 23	T05N	R06E	E	H	40 47 48	123 28 48	900		1945			53
F2 1316	CALLAHAN RANGER STA	3136	SEC 21	T40N	R08W		M	41 18 00	122 48 00	900		1943			47
F7 1505	CAPE RANCH	710	SEC 23	T01N	R03W	F	H	40 27 24	124 22 48	000		1959			12
F6 1608	CEDAR CREEK HATCHERY	950	SEC 14	T23N	R17W	O	M	39 50 24	123 42 18	805		1957			23
F3 1799	CLEAR CREEK	975	SEC 07	T15N	R07E	H	H	41 42 30	123 26 54	900		1959			47
F4 1886	COFFEE CREEK RS	2500	SEC 06	T07W	R37N		M	41 05	122 42	900		1960			53
F3 1990	COPCO DAM NO 1	2700	SEC 29	T48N	R04W	P	M	41 59 00	122 20 00	900		1928			47
F6 2081	COVELO	1385	SEC 12	T22N	R13W		M	39 47 00	123 15 00	900		1921			23
F6 2084	COVELO EEL RIVER RS	1514	SEC 28	T23N	R11W		M	39 50 00	123 05 00	900		1939			23
F0 2147	CRESCENT CITY 1 N	40	SEC 20	T16N	R01W		H	41 46 00	124 12 00	900		1931			08
F0 2148	CRESCENT CITY 7 ENE	120	SEC 08	T16N	R01E		H	41 48 00	124 05 00	900		1913			08
F0 2150	CRESCENT CITY HMS	50	SEC 20	T16N	R01W		H	41 46 00	124 12 00	900		1941			08
F0 2152	CRESCENT CITY 11 E	360	SEC 30	T16N	R02E	B	H	41 45 18	123 59 30	000		1947			08
F6 2218	CUMMINGS	1270	SEC 21	T23N	R16W		M	39 50 00	123 38 00	900		1927			23
F1 2480	DORRIS INSPECT STA	4240	SEC 36	T48N	R01W	R	M	41 57 18	121 54 30	000		1959			47
F6 2490	DOS RIOS	927	SEC 31	T22N	R13E		M	39 43 00	123 21 00	900		1917			23
F0 2749	ELK VALLEY	1711	SEC 34	T19N	R04E		H	42 00 00	123 43 00	900		1938			08
F2 2899	ETNA	2912	SEC 28	T42N	R09W		M	41 28 00	122 54 00	900		1940			47
F7 2906	ETTERSBURG 2 SE	1370	SEC 16	T04S	R02E	D	H	40 07 12	123 58 18	000		1953			12
F6 2910	EUREKA WB CITY	43	SEC 22	T05N	R01W		H	40 48	124 10	900		1878			12
F7 3025	FERNDALE 8 SSW	1445	SEC 06	T01N	R02W	P	H	40 29 30	124 20 24	900		1959			12
F6 3030-01	FERNDALE 2NW	10	SEC 34	T03N	R02W	K	H	40 35 54	124 16 36	900		1963			12
F5 3041	FIELDBROOK 4 D RCH	285	SEC 36	T07N	R01E	P	H	40 56 36	124 01 06	000		1956			12
F3 3122	FOOTHILL SCHOOL	2960	SEC 25	T46N	R05W	F	M	41 48 42	122 22 18	000		1962			
F4 3130	FOREST GLEN	2340	SEC 22	T01S	R08E		H	40 23 00	123 20 00	900		1930			53
F3 3151	FORKS OF SALMON	1270	SEC 24	T10N	R07E	A	H	41 15 12	123 19 00	900		1959			47
F2 3176	FORT JONES 6 ESE	3324	SEC 12	T43N	R08W		M	41 35 00	122 43 00	900		1941			47
F2 3182	FORT JONES RANGER ST	2720	SEC 02	T43N	R09W	C	M	41 36 00	122 51 00	900		1936			47
F6 3194	FORTUNA	60	SEC 35	T03N	R01W	Q	H	40 36 00	124 09 00	000		1956			12
F6 3217	FOX CAMP	2500	SEC 09	T02S	R01E	R	H	40 18 24	124 03 54	811		1960			12
F6 3322-01	GARBERVILLE MAINTSTN	540	SEC 24	T04S	R03E	G	H	40 06 00	123 47 40	809		1935			12
F0 3357	GASQUET RANGER STA	384	SEC 21	T17N	R02E	N	H	41 52 00	123 58 00	900		1940			08
F2 3362-03	GAZELLE 4NNW	2730	SEC 16	T43N	R06W	C	M	41 34 42	122 32 42	000		1949			47
F2 3363	GAZELLE LOOKOUT	5200	SEC 08	T41N	R07W	J	M	41 24 30	122 40 30	000		1956			47
F1 3564	GRASS LAKE HWY M S	5080	SEC 28	T44N	R03W	G	M	41 37 48	122 11 30	900		1954			47
F2 3614	GREENVIEW	2818	SEC 29	T43N	R09W		M	41 33 00	122 54 00	900		1943			47
F3 3761	HAPPY CAMP RANGR STA	1090	SEC 11	T16N	R07E		H	41 48 00	123 23 00	900		1914			47
F6 3785	HARRIS 7 SSE	1910	SEC 27	T05S	R05E	N	H	39 59 24	123 36 42	000		1953			23
F6 3810	HARTSOOK INN	470	SEC 24	T05S	R03E	D	H	40 00 48	123 47 30	000		1958			12
F4 3859	HAYFORK RANGER STA	2340	SEC 12	T31N	R12W	R	M	40 33 00	123 10 00	900		1915			53
F4 3949	HIDDEN VALLEY RCH	1978	SEC 32	T01N	R07E	M	H	40 24 54	123 24 30	000		1959			53
F6 3956	HIGH ROCK	900	SEC 15	T01S	R02E	K	H	40 22 48	123 56 30	808		1960			44
F3 3987	HILTS	2900	SEC 23	T48N	R07W		M	42 00 00	122 38 00	900		1939			47
F6 4037-02	HOLMES	150	SEC 33	T01N	R02E	R	H	40 25 06	123 57 06	000		1954			12
F7 4074	HONEYDEW 2 WSW	380	SEC 02	T03S	R01W	C	H	40 14 18	124 09 00	900		1953			12
F7 4074-01	HONEYDEW HUNTER	380	SEC 02	T03S	R01W	M	H	40 14 18	124 09 06	000		1955			12
F5 4077	HONOR CAMP 42	1875	SEC 31	T07N	R03E	K	H	40 56 48	123 52 42	000		1956			12
F4 4082	HOOPA	350	SEC 25	T08N	R04E		H	41 03 00	123 40 00	900		1941			12
F4 4084	HOOPA 2 SE	315	SEC 31	T08N	R05E		H	41 02 00	123 39 00	900		1954			12

TABLE A-1 (Continued)

INDEX OF CLIMATOLOGICAL STATIONS FOR 1962-63

NORTH COASTAL AREA

Station Number	Station Name	Elevation (in feet)	Section	Township	Range	40-Acre Tract	Base & Meridian	Latitude	Longitude	Cooperator Number	Cooperator's Index Number	Record Began	Record Ended	Years Missing	County Code
								° ' "	° ' "						
F4 4191	HYAMPOM	1260	SEC 25	T03N	R06E		H	40 37 00	123 28 00	900		1940			53
F0 4202	IDLEWILD MAINT STN	1250	SEC 06	T17N	R04E	D	H	41 54 00	123 46 12	900		1946			08
F6 4305	ISLAND MTN	940	SEC 15	T05S	R06E	G	H	40 01 42	123 29 30	006		1943			53
F3 4577	KLAMATH	25	SEC 15	T13N	R01E		H	41 31 00	124 02 00	900		1941			08
F3 4583	KLAMATH RIVER 1 SW	1750	SEC 12	T46N	R09W	A	M	41 51 06	122 50 06	000		1958	1963		47
F6 4587	KNEELAND 10 SSE	2356	SEC 13	T03N	R02E		H	40 38 00	123 54 00	900		1952			12
F5 4602	KORBEL	150	SEC 28	T06N	R02E	P	H	40 52 00	123 57 30	900		1937			12
F6 4690	LAKE MOUNTAIN		SEC 21	T05S	R07E		H	40 01 00	123 24 00	900		1939			53
F1 4838	LAVA BEDS NAT MON	4770	SEC 28	T45N	R04E	H	M	41 43 48	121 30 30	900		1940		06	47
F6 4851	LAYTONVILLE	1640	SEC 01	T21N	R15W		M	39 42 00	123 29 00	900		1940			23
F5 4982	LITTLE RIVER	150	SEC 31	T08N	R01E	P	H	41 01 54	124 06 36	000		1949			12
F2 4984-02	LITTLE SHASTA	2725	SEC 26	T45N	R05W	C	M	41 43 00	122 23 00	000		1960			47
F5 5086	LONG PRAIRIE RCH	1875	SEC 06	T06N	R03E		H	40 56 30	123 52 30	000		1952	1962		12
F7 5295-41	MANN RANCH	2200	SEC 35	T02S	R01E	F	H	40 15 24	124 02 48	811		1960			12
F1 5505	MEDICINE LAKE	6660	SEC 10	T43N	R03E		M	41 35 00	121 37 00	900		1946			47
F6 5676	MINA 3 NW	2875	SEC 28	T05S	R07E	A	H	40 00 06	123 23 30	000		1927			53
F6 5713	MIRANDA SPENGLER RCH	400	SEC 19	T03S	R04E		H	40 12 00	123 46 00	900		1939			12
F2 5783	MONTAGUE	2500	SEC 27	T45N	R06W	D	M	41 43 42	122 31 36	000	045783	1888		05	47
F2 5785	MONTAGUE 3 NE	2640	SEC 18	T45N	R05W		M	41 45 00	122 28 00	900		1948			47
F1 5941	MOUNT HERRON R S	4250	SEC 32	T46N	R01W		M	41 47 00	122 00 00	900		1942			47
F4 6032	MUMBO BASIN	5700	SEC 35	T39N	R06W	E	M	41 12 00	122 32 00	900		1946			53
F6 6050	MYERS FLAT	175	SEC 30	T02S	R03E	J	H	40 15 42	123 52 00	900		1950			12
F3 6328	OAK KNOLL RANGER STA	1963	SEC 12	T46N	R09W		M	41 50 00	122 51 30	900		1942			47
F6 6408	OLD HARRIS	2225	SEC 30	T04S	R05E	G	H	40 05 00	123 39 42	000		1956			12
F5 6497-01	ORICK 3 NNE	50	SEC 22	T11N	R01E	K	H	41 19 24	124 02 30	000		1950			12
F5 6497-02	ORICK ARCATA REDWOOD	75	SEC 22	T11N	R01E	K	H	41 19 24	124 02 36	000		1954			12
F5 6498	ORICK PRAIRIE CREEK	161	SEC 02	T11N	R01E		H	41 20 00	124 02 00	900		1937			12
F3 6499	ORICK 10 SE	2475	SEC 11	T09N	R02E	F	H	41 11 00	123 55 00	900		1958	1963		12
F3 6508	ORLEANS	403	SEC 31	T11N	R06E		H	41 18 00	123 32 00	900		1885			12
F5 6745	PATRICKS PT STATE PK	250	SEC 26	T09N	R01W	L	H	41 08 12	124 09 00	804		1947			12
F7 6835-01	PETROLIA	175	SEC 03	T02S	R02W	L	H	40 19 30	124 16 48	000		1958			12
F7 6835-02	PETROLIA 4 NW	900	SEC 19	T01S	R02W	D	H	40 22 24	124 18 30	000		1953			12
F6 6851-15	PHILLIPSVILLE 1SE	300	SEC 19	T03S	R04E	B	M	40 11 42	123 46 00	000		1963			
F6 6976	PLASKETT	6580	SEC 27	T22N	R09W	A	M	39 44 12	122 51 24	000		1960			11
F4 7698	SALYER RANGER STA	623	SEC 14	T06N	R05E		H	40 53 00	123 35 00	900		1931			53
F3 8025	SAWYERS BAR R S	2169	SEC 20	T40N	R11W		M	41 18 00	123 08 00	900		1931			47
F6 8045	SCOTIA	139	SEC 07	T01N	R01E		H	40 29 00	124 06 00	900		1926			12
F3 8083-01	SEIAD VALLEY R S	1371	SEC 11	T46N	R12W	B	M	41 50 36	123 11 42	905		1953			47
F6 8163	SHERWOOD VALLEY	2170	SEC 32	T20N	R14W	E	M	39 32 36	123 26 30	901		1958			23
F0 8311-01	SMITH RIVER 2 WNW	195	SEC 21	T18N	R01W	A	H	41 56 30	124 10 42	000		1951			08
F0 8311-02	SMITH RIVER 7 SSE	60	SEC 30	T17N	R01E	F	H	41 50 24	124 06 36	000		1952			08
F3 8346	SOMESBAR 1W	520	SEC 04	T11N	R06E		H	41 23 00	123 29 00	900		1954			12
F6 8490	STANDISH HICKEY PARK	850	SEC 03	T23N	R17W	E	M	39 52 30	123 43 30	930		1950			23
F7 8899	THORN 2 NW	1000	SEC 09	T05S	R02E		M	40 02 00	123 57 00	000		1958	1962		12
F3 8919	TI BAR R S	710	SEC 08	T13N	R06E	L	H	41 31 48	123 31 30	905		1954			47
F4 9024	TRINITY DAM VISTA PT	2500	SEC 16	T34N	R08W		M	40 48 00	122 46 00	900		1956			53
F4 9045-01	TRUMBLE RANCH	3190	SEC 23	T39N	R07W	E	M	41 13 44	122 38 44	000		1961			53
F1 9053	TULELAKE	4035	SEC 06	T47N	R05E		M	41 58 00	121 28 00	900		1932			47
F1 9057	TULELAKE INSP STN	4408	SEC 31	T44N	R07E	E	M	41 36	121 12	000	049057	1953			25
F7 9177	UPPER MATTOLE	255	SEC 33	T02S	R01W		H	40 15 00	124 11 00	900		1956			12
F4 9490	WEAVERVILLE RANGER S	2050	SEC 12	T33N	R10W		M	40 44 00	122 56 00	900		1871			53
F2 9499	WEED 1 S	3630	SEC 11	T41N	R05W		M	41 25 00	122 23 00	900		1957			47
F6 9527	WEOTT 2SE	600	SEC 12	T02S	R02E	H	H	40 18 29	123 53 40	000		1961			12
F7 9654	WHITETHORN	1050	SEC 15	T05S	R02E	E	M	40 01 18	123 56 12	000		1962			12
F6 9684	WILLITS 1 NE	1350	SEC 17	T18N	R13W		M	39 25 00	123 21	900		1950			23
F6 9685	WILLITS HOWARD RS	1925	SEC 05	T17N	R13W		M	39 21 00	123 19 00	900		1935			23
F2 9866	YREKA	2631	SEC 27	T45N	R07W		M	41 43 00	122 38 00	900		1871			47
F6 9940	ZENIA 1 SSE	2880	SEC 22	T03S	R06E	G	H	40 11 18	123 28 54	000		1950			53

TABLE A-2

PRECIPITATION DATA FOR 1962-63

NORTH COASTAL AREA

Station	Precipitation in inches												
	Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
SMITH RIVER													
CRESCENT CITY 1 N	72.23	0.00	3.97	2.29	10.51	8.30	7.19	2.68	7.28	7.28	13.60	8.81	0.32
CRESCENT CITY 2 ENE	90.59	0.00	3.46	2.08	12.93	10.97	10.10	3.07	9.39	9.70	16.41	11.95	0.53
CRESCENT CITY HMS	-	0.00	4.00	2.21	10.70	8.66	7.61	-	-	-	13.28	8.78	0.39
CRESCENT CITY 11 E	107.90	0.00	3.07	2.23	16.83	14.35	13.07	4.04	10.61	14.57	19.58	9.14	0.41
ELK VALLEY	81.48	0.00	2.62	1.17	14.00	9.69	8.85	5.04	9.25	10.76	12.93	6.44	0.73
GASQUET RANGER STA	104.17	0.00	3.05	2.05	15.88	12.62	11.49	3.48	11.97	11.96	20.93	9.96	0.78
IDLEWILD MAINT STN	89.87	0.00	3.13	1.62	14.75	12.83	10.20	3.26	12.92	11.37	13.35	7.77	0.67
SMITH RIVER 2 WNW	133.40	T	6.30	4.45	16.60	17.80	10.80	6.30	17.60	15.15	23.85	13.25	1.30
SMITH RIVER 7 SSE	121.60	T	3.10	2.60	12.60	11.50	12.50	3.10	13.70	14.70	26.40	21.00	0.40
LOST RIVER													
BRAY 10 WSW	31.64	0.14	0.90	0.69	7.33	3.57	3.86	2.21	4.34	2.63	3.96	1.30	0.71
DORRIS INSPECT STA	-	0.09	-	-	-	-	-	-	2.72	0.77	1.63	0.62	0.53
GRASS LAKE HWY M S	20.95	T	0.72	0.49	6.74	2.12	1.45	0.60	1.16	1.69	2.40	1.81	1.77
LAVA BEDS NAT MON	19.81	0.04	0.26	0.23	8.30	0.98	1.38	0.48	1.14	1.38	1.77	2.26	1.59
MEDICINE LAKE	66.95	0.00	0.90	0.85	15.75	4.90	6.45	5.25	5.85	9.80	11.45	3.90	1.85
MOUNT HERRON R S	14.96	0.03	0.53	0.37	4.81	1.57	1.59	0.28	2.02	0.66	1.59	0.73	0.78
TULELAKE	13.07	0.00	0.11	0.34	5.04	0.63	1.19	0.41	1.29	0.53	1.22	1.42	0.89
TULELAKE INSP STN	19.84	0.44	0.51	0.02	8.29	0.84	1.57	0.73	1.47	1.87	1.79	0.94	1.37
SHASTA-SCOTT													
BIG SPRINGS 4 E	15.28	0.01	0.21	0.37	5.07	1.32	1.50	0.61	1.78	0.44	1.65	1.35	0.97
CALLAHAN RANGER STA	28.42	0.10	1.06	0.74	7.02	3.46	3.54	0.43	3.87	1.74	4.31	1.78	0.37
ETNA	35.67	0.05	0.89	1.30	8.59	4.61	4.49	3.21	4.11	1.68	3.66	1.43	1.65
FORT JONES 6 ESE	27.03	0.32	1.01	0.59	6.14	3.81	3.26	1.88	2.99	1.70	3.46	1.03	0.84
FORT JONES RANGER ST	26.69	0.05	0.75	0.48	5.78	4.03	3.65	1.83	3.55	1.68	3.18	1.56	0.15
GAZELLE 4NNW	17.54	0.16	0.57	0.42	5.29	1.70	2.19	1.32	2.08	0.46	1.21	1.28	0.86
GAZELLE LOOKOUT	-	0.49	1.05	0.03	-	-	-	-	-	-	-	-	0.89
GREENVIEW	28.20	0.54	0.75	0.06	7.15	4.02	3.75	1.90	4.44	1.85	2.85	0.62	0.27
LITTLE SHASTA	16.47	0.00	0.28	0.45	4.53	1.88	1.90	0.75	2.30	0.70	1.51	0.80	1.37
MONTAGUE	15.29	0.05	0.53	0.42	3.85	1.65	1.90	1.24	1.97	0.85	1.23	1.23	0.37
MONTAGUE 2 NE	14.92	0.00	0.42	0.31	4.04	1.78	1.94	0.95	1.94	0.55	1.70	0.89	0.40
WEED 1 S	29.70	T	0.89	0.57	8.30	3.56	3.60	1.05	5.15	3.66	6.14	3.01	1.24
YREKA	23.77	0.20	0.88	0.78	6.00	2.71	3.32	1.06	4.35	1.42	2.02	0.53	0.50
KLAMATH RIVER													
BESWICK 7 S	51.49	0.91	1.65	1.40	12.68	7.05	7.05	2.25	7.15	3.85	4.90	2.00	0.60
BLUE CREEK MTN LO	126.53	-	-	-	-	-	-	-	-	-	-	-	-
CLEAR CREEK	72.38	1.32	1.93	1.30	12.18	8.87	8.44	3.21	9.94	10.44	10.92	3.21	0.62
COPCO DAM NO 1	24.42	0.03	0.50	0.56	6.15	2.49	2.84	1.63	2.72	1.33	3.53	1.06	1.58
FOOTHILL SCHOOL	-	-	-	-	-	-	-	-	2.01	1.04	2.18	0.93	1.10
FORKS OF SALMON	52.98	0.00	1.61	1.02	12.33	5.82	5.44	2.45	7.40	5.60	9.29	1.73	0.29
HAPPY CAMP RANGR STA	64.36	0.40	1.40	1.00	11.48	8.55	7.93	2.69	8.55	8.07	9.36	3.31	1.02
HILTS	30.22	0.40	1.00	0.86	7.41	4.50	4.28	1.17	4.66	1.96	2.24	1.29	0.45
KLAMATH	83.69	T	3.50	1.70	13.07	12.64	7.05	3.79	10.46	8.69	15.32	6.90	0.57
KLAMATH RIVER 1 SW	30.05	0.65	0.77	0.75	7.74	4.36	4.00	2.31	3.04	2.43	3.08	0.58	0.34
OAK KNOLL RANGER STA	34.07	0.61	1.06	0.91	8.46	4.30	4.50	1.65	4.26	2.89	3.92	1.22	0.29
ORICK 10 SE	-	0.00	3.37	1.76	15.82	-	4.01	5.25	7.40	12.27	10.67	0.00	-
ORLEANS	61.70	0.00	2.49	1.41	11.55	7.91	6.76	3.62	7.08	8.27	9.78	2.67	0.16
SAWYERS BAR R S	53.54	0.00	1.97	0.79	9.31	5.10	5.72	1.82	8.33	6.11	9.71	1.96	2.72
SEIAD VALLEY R S	54.42	0.23	2.10	0.93	11.00	7.77	6.28	3.13	7.04	5.80	7.38	2.20	0.56
SOMESBAR 1W	67.62	0.02	2.98	1.72	12.02	8.81	7.66	2.29	9.75	9.05	10.32	2.67	0.33
TI BAR R S	72.67	0.00	2.39	1.66	12.48	9.38	8.72	3.34	9.80	9.31	11.78	3.42	0.39
TRINITY RIVER													
BIG BAR RANGER STA	43.01	0.03	2.22	0.58	7.52	4.69	6.51	1.80	6.01	5.11	7.34	0.93	0.27
BRUNT RANCH 1S	52.75	0.33	1.95	0.60	9.78	5.06	4.76	1.93	6.92	8.91	10.47	1.77	0.27
COFFEE CREEK RS	55.09	0.00	2.39	0.69	11.63	5.82	8.45	6.72	7.73	5.79	1.10	3.91	0.86
FORKS GLEN	-	0.48	2.24	0.78	-	7.55	6.80	4.47	10.80	13.95	13.35	1.78	0.33
HAYFORK RANGER STA	38.83	0.01	1.69	0.47	7.60	3.23	4.28	2.79	5.97	5.10	6.53	0.99	0.17

TABLE A-2 (Continued)

PRECIPITATION DATA FOR 1962-63

NORTH COASTAL AREA

Station	Precipitation in inches												
	Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
TRINITY RIVER													
HIDDEN VALLEY RCH	68.39	0.40	1.67	1.14	12.49	5.40	6.44	6.55	6.58	12.73	12.95	1.59	0.45
HOOPA	67.24	0.00	2.55	1.94	11.30	9.15	7.18	1.95	9.79	8.96	12.62	1.43	0.37
HOOPA 2 SE	63.32	0.00	2.42	2.03	10.89	7.58	7.24	2.31	9.18	9.21	9.91	2.30	0.25
HYAMDOM	50.37	0.06	1.43	0.73	10.54	5.37	5.98	5.47	4.65	6.36	8.86	0.87	0.05
MUMBO BASIN	68.91	-	-	-	-	-	-	-	-	-	-	-	-
SALYER RANGER STA	52.10	0.00	1.97	0.79	9.31	5.10	5.72	1.84	6.90	7.70	10.21	2.38	0.18
TRINITY DAM VISTA PT	41.80	0.00	1.39	0.21	8.75	5.06	4.35	2.93	7.84	*	9.67	1.04	0.56
TRUMBLE RANCH	-	-	-	-	-	-	-	4.20	7.60	7.90	12.20	-	-
WEAVERVILLE RANGER S	45.06	0.00	2.15	0.48	7.99	4.86	4.38	3.91	6.61	5.01	6.27	2.84	0.56
MAD RIVER													
ARCATA & R	53.84	T	2.30	1.19	9.18	8.28	4.77	1.78	5.93	6.24	10.90	2.85	0.42
BIG LAGOON	68.40	0.00	2.45	1.41	11.66	9.45	5.31	2.87	8.14	7.62	14.74	4.36	0.39
BLUE LAKE	57.61	0.00	2.43	0.90	10.21	8.03	5.09	1.54	7.59	7.16	11.54	2.54	0.58
BLUE LAKE REDWOOD CR	-	0.00	1.59	1.54	-	8.73	7.45	1.72	7.55	7.46	13.97	3.36	0.46
FIELDBROOK 4 D RCH	66.25	0.00	3.20	1.55	11.35	10.95	5.20	5.90	5.20	7.75	12.35	2.40	0.40
HONDO CAMP 42	85.33	0.00	3.59	1.71	15.00	13.56	8.38	4.50	7.30	8.06	17.94	5.07	0.22
KORBEL	58.34	0.00	2.86	1.00	10.48	8.39	5.00	2.25	6.03	7.78	11.51	2.53	0.51
LITTLE RIVER	68.38	0.00	3.12	1.55	9.07	10.60	5.68	2.68	8.33	7.93	14.82	4.08	0.52
LONG PRAIRIE RCH	-	0.00	4.12	-	-	-	-	-	-	-	-	-	-
ORICK 3 NNE	79.44	0.04	3.30	1.66	14.20	11.50	5.93	2.97	9.29	8.36	16.77	4.92	0.50
ORICK ARCATA REDWOOD	69.64	0.03	3.13	1.38	12.63	9.99	5.23	2.44	8.28	7.65	13.73	4.72	0.43
ORICK PRAIRIE CREEK	71.42	0.00	3.53	1.40	12.83	9.84	5.77	2.58	8.43	7.63	14.28	4.72	0.41
PATRICKS PT STATE PK	80.80	0.00	2.25	1.55	12.50	10.74	6.28	2.62	10.57	10.38	16.41	7.20	0.30
EEL RIVER													
ADANAC LODGE	77.26	0.00	2.04	1.35	17.27	7.62	9.18	7.70	4.95	11.05	14.92	1.13	0.05
ALDERPOINT	60.98	T	2.21	1.13	14.05	7.16	5.17	4.17	8.12	8.23	9.35	1.21	0.18
BRANSCOMB 2 NW	85.72	0.00	1.94	1.89	19.62	8.36	11.31	5.20	8.65	9.80	17.46	1.49	0.00
BRIDGEVILLE 4 NNW	78.99	0.00	3.52	1.33	13.49	*	16.75	2.50	9.78	12.51	14.23	4.61	0.35
BRIDGEVILLE P O	-	0.00	3.08	1.06	12.80	-	-	-	-	-	-	-	-
BULL CREEK	89.10	0.00	2.50	1.60	13.58	7.93	8.49	6.41	11.93	15.23	17.00	4.25	0.18
BURLINGTON ST PARK	77.93	0.00	2.27	1.24	13.79	7.44	7.67	4.29	10.83	12.44	14.88	2.95	0.13
CEDAR CREEK HATCHERY	76.37	0.00	2.03	1.45	17.66	7.58	8.88	3.80	9.11	10.06	14.72	1.05	0.03
COVELO	43.17	0.00	0.70	0.80	8.84	4.09	5.12	3.22	5.45	7.33	6.97	0.55	0.10
COVELO EEL RIVER RS	39.36	0.00	0.97	0.60	8.13	3.77	4.20	4.06	2.63	6.70	7.48	0.71	0.11
CUMMINGS	80.91	0.00	2.03	1.46	16.56	7.81	9.30	8.02	7.77	11.66	14.88	1.32	0.10
DOS RIOS	50.21	0.00	0.90	0.85	10.31	4.38	3.07	3.92	8.14	8.53	9.18	0.74	0.14
EUREKA WB CITY	43.94	T	1.92	0.71	6.49	6.77	2.58	1.70	4.74	6.28	10.68	1.74	0.33
FERNDALE 2NW	-	-	-	-	-	-	-	-	-	-	10.98	1.70	0.35
FORTUNA	45.91	0.00	2.02	0.70	7.23	5.94	3.02	1.58	5.61	6.22	11.26	2.02	0.31
FOX CAMP	103.94	0.00	4.28	2.00	16.84	8.86	10.23	8.86	11.25	15.54	19.00	7.01	0.07
GARBERVILLE MAINTSTN	93.08	0.00	2.65	0.13	15.31	6.07	6.86	7.97	6.72	18.03	12.69	16.09	0.56
HARRIS 7 SSE	73.24	0.00	2.20	0.00	16.89	6.90	6.33	9.08	6.41	11.92	12.51	0.95	0.05
HARTSOOK INN	-	0.00	1.31	1.20	13.26	8.87	9.40	7.80	7.95	11.80	13.28	1.64	-
HIGH ROCK	70.21	0.00	1.87	1.19	11.75	7.53	6.28	5.31	7.52	12.88	12.42	3.34	0.12
HOLMES	66.51	0.00	2.04	1.17	10.69	6.31	5.84	5.18	6.74	13.08	12.17	3.14	0.15
ISLAND MTN	45.86	0.00	1.36	0.43	10.58	4.18	4.05	5.66	2.87	8.52	7.60	0.61	0.00
KNEELAND 10 SSE	58.44	0.00	2.71	1.00	10.34	8.23	4.78	3.79	0.85	9.80	12.94	3.50	0.50
LAKE MOUNTAIN	60.14	0.00	1.67	0.93	13.00	6.93	5.91	6.90	3.57	9.74	9.89	1.44	0.16
LAYTONVILLE	66.93	0.00	1.45	1.22	12.51	6.35	7.27	10.59	6.26	9.06	11.23	0.92	0.07
MINA 3 NW	64.50	0.00	1.98	1.00	13.14	7.25	6.86	3.59	8.27	9.93	10.98	1.50	0.00
MIRANDA SPENGLER RCH	65.03	0.00	2.67	1.24	12.96	7.41	6.79	6.15	5.75	10.55	9.96	1.50	0.05
MYERS FLAT	82.13	0.00	2.60	1.56	13.27	8.38	8.29	9.05	7.41	12.63	15.03	3.76	0.15
OLD HARRIS	72.41	0.00	2.67	1.03	12.81	7.98	7.67	7.22	6.63	12.11	12.07	1.97	0.25
PHILLIPSVILLE 1SE	-	-	-	-	-	-	-	7.36	4.85	10.64	10.57	1.66	0.12
BLACKETT	-	-	0.90	1.09	10.91	-	-	-	-	-	-	-	-
SCOTIA	57.31	0.01	1.46	0.98	9.14	6.57	4.54	2.73	7.54	9.26	12.38	2.45	0.25
SHERWOOD VALLEY	72.27	0.00	2.14	1.66	11.28	6.03	8.86	4.53	7.01	12.40	16.39	1.97	0.00
STANDISH HICKEY PARK	78.82	0.00	2.42	1.96	17.50	8.08	9.45	3.69	9.09	10.64	14.66	1.28	0.05
WEOTT 2SE	-	0.00	-	1.26	13.94	-	-	2.32	9.07	12.55	12.63	3.46	0.15

TABLE A-2 (Continued)

PRECIPITATION DATA FOR 1962-63

NORTH COASTAL AREA

Station	Precipitation in Inches												
	Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
EEL RIVER													
WILLITS 1 NE	55.37	0.00	0.49	0.93	11.36	5.17	6.56	6.89	4.70	7.92	10.38	0.91	0.06
WILLITS HOWARD RS	-	0.00	0.59	1.31	11.78	4.53	7.24	7.20	3.25	-	10.45	-	0.08
ZENIA 1 SSE	82.51	0.00	3.43	1.52	17.78	9.97	9.59	6.05	7.82	11.07	13.32	1.88	0.08
MATTOLE RIVER													
CAPE RANCH	-	-	-	-	-	-	-	3.52	9.04	9.38	15.87	3.40	-
ETTERSBURG 2 SE	86.70	0.00	5.30	2.95	14.52	8.70	6.61	10.10	12.14	8.08	15.65	2.65	0.00
FERNDALE 8 SSW	68.55	0.09	2.65	0.83	10.11	10.54	5.87	3.21	8.17	9.91	12.97	3.16	1.04
HONEYDEW 2 WSW	125.85	0.00	2.78	2.27	18.60	14.60	12.44	8.20	16.35	18.11	26.06	6.14	0.30
HONEYDEW HUNTER	125.82	0.00	2.90	2.00	18.50	14.97	12.52	10.40	13.05	18.28	26.90	5.90	0.40
MANN RANCH	122.55	0.00	4.02	1.80	18.15	13.63	12.17	10.00	15.45	19.43	21.08	6.48	0.34
PETROLIA	75.17	0.00	2.00	0.95	10.24	9.46	5.81	5.40	7.14	10.90	19.12	3.83	0.32
PETROLIA 4 NW	64.55	0.00	3.00	0.85	8.55	9.30	4.00	2.50	7.75	8.50	16.50	3.15	0.45
THORN 2 NW	-	0.00	2.93	3.18	16.65	12.87	11.15	-	-	-	-	-	-
UPPER MATTOLE	94.91	0.00	3.10	1.40	13.82	11.00	8.74	7.70	10.39	12.69	21.30	4.54	0.23
WHITETHORN	98.83	0.00	3.00	2.75	18.25	12.00	11.62	8.11	8.92	14.70	17.17	2.19	0.12

TABLE A-3

TEMPERATURE DATA FOR 1962-63

NORTH COASTAL AREA

Station			Temperature in Degrees Fahrenheit											
Number	Name		Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
F5-0901	BLUE LAKE	ABS.MAX.	82	76	73	82	73	72	71	66	72	65	65	73	70
		AVG.MAX.	62.2	68	68	67	64	60	57	56	63	57	58	62	67
		AVERAGE	54.6	60	62	60	56	52	48	45	55	48	52	56	60
		AVG.MIN.	46.9	52	55	54	47	45	40	34	47	40	45	51	53
		ABS.MIN.	22	47	44	43	37	33	25	22	34	30	35	45	41
F6-1608	CEDAR CREEK HATCHERY	ABS.MAX.	104	98	96	94	84	78	61	56	70	68	72	92	104
		AVG.MAX.	66.4	89	84	81	67	58	51	49	60	55	57	72	80
		AVERAGE	54.6	68	68	64	55	48	44	38	52	45	50	60	64
		AVG.MIN.	42.2	48	51	46	43	39	36	28	43	35	42	48	48
		ABS.MIN.	16	42	40	41	33	26	21	16	31	26	30	38	39
F1-2480	DORRIS INSPECT STA	ABS.MAX.	-	-	-	-	-	-	-	-	62	65	67	85	88
		AVG.MAX.	-	-	-	-	-	-	-	-	52.4	49.0	50.2	65.6	70.7
		AVERAGE		-	-	-	-	-	-	-	40.4	36.4	37.0	50.4	54.4
		AVG.MIN.	-	-	-	-	-	-	-	-	28.4	23.9	23.8	35.1	38.0
		ABS.MIN.	-	-	-	-	-	-	-	-	15	11	-3	22	26
F5-3041	FIELDBROOK 4 D RCH	ABS.MAX.	85	80	76	85	78	76	64	63	70	63	67	68	72
		AVG.MAX.	63.6	71	71	69	68	63	57	56	61	57	58	63	69
		AVERAGE	53.2	60	61	60	56	52	47	44	54	47	48	53	59
		AVG.MIN.	43.1	48	51	50	45	41	37	31	46	37	39	43	49
		ABS.MIN.	20	45	48	46	39	30	26	20	36	32	33	36	46
F6-3322-01	GARBERVILLE MAINTSTN	ABS.MAX.	104	104	100	-	76	79	65	61	70	70	70	88	90
		AVG.MAX.	67.4	90	87	-	70	62	51	52	64	60	61	71	74
		AVERAGE	55.0	70	68	-	55	51	44	42	56	48	50	60	62
		AVG.MIN.	42.9	49	50	-	40	40	36	32	47	37	40	48	49
		ABS.MIN.	22	44	47	-	31	30	26	22	37	28	34	38	44
F2-3363	GAZELLE LOOKOUT	ABS.MAX.	-	-	89	89	-	-	-	-	-	-	-	-	86
		AVG.MAX.	-	-	82	80	-	-	-	-	-	-	-	-	71
		AVERAGE		-	68	67	-	-	-	-	-	-	-	-	58
		AVG.MIN.	-	-	54	54	-	-	-	-	-	-	-	-	46
		ABS.MIN.	-	-	44	45	-	-	-	-	-	-	-	-	31
F1-3564	GRASS LAKE HWY M S	ABS.MAX.	-	-	89	87	79	68	63	64	64	-	55	70	82
		AVG.MAX.	57.0	-	74.1	75.6	60.5	49.0	48.1	44.3	49.7	-	44.0	58.7	65.8
		AVERAGE	42.8	-	54.8	54.4	45.4	37.6	35.8	29.8	39.6	-	33.7	46.0	50.4
		AVG.MIN.	28.5	-	35.4	33.3	30.2	26.1	23.6	15.2	29.5	-	23.4	33.2	35.1
		ABS.MIN.	-1	-	29	25	21	7	11	-1	17	-	5	23	16
F6-4037-02	HOLMES	ABS.MAX.	99	85	82	99	77	71	69	61	73	74	74	88	82
		AVG.MAX.	65.5	75	75	75	68	60	57	55	65	60	61	67	72
		AVERAGE	56.0	62	64	64	59	52	49	45	56	50	52	58	62
		AVG.MIN.	46.3	49	54	52	50	45	41	35	48	41	42	48	51
		ABS.MIN.	20	42	45	44	42	34	25	20	39	33	34	40	44
F5-4077	HONOR CAMP 42	ABS.MAX.	90	90	81	90	84	84	72	70	70	64	64	82	88
		AVG.MAX.	62.2	76.0	71.6	69.6	67.5	57.9	59.7	55.0	59.9	50.8	52.2	59.2	67.7
		AVERAGE	51.7	61.2	58.5	57.4	55.6	49.2	50.1	43.3	51.0	42.9	44.0	50.6	56.0
		AVG.MIN.	41.0	46.5	45.4	45.2	43.6	40.6	40.5	31.6	42.2	35.0	35.7	42.1	44.3
		ABS.MIN.	24	40	40	41	36	28	30	24	32	26	30	36	38
F0-4202	IDLEWILD MAINT STN	ABS.MAX.	103	103	94	92	80	62	60	56	60	64	68	88	98
		AVG.MAX.	65.1	90	83	77	62	54	48	46	58	58	53	70	81
		AVERAGE	52.7	70	66	62	52	46	40	36	50	46	44	56	62
		AVG.MIN.	40.3	49	50	48	42	38	33	27	42	34	36	43	44
		ABS.MIN.	18	40	44	40	34	26	22	18	30	25	30	34	38
F3-4583	KLAMATH RIVER 1 SW	ABS.MAX.	100	100	95	97	84	79	71	64	71	72	76	93	95
		AVG.MAX.	68.7	91	86	86	70	61	52	54	61	60	60	76	80
		AVERAGE	56.0	72	70	68	57	50	44	40	51	46	50	62	64
		AVG.MIN.	43.2	52	53	49	44	40	35	25	41	33	40	47	49
		ABS.MIN.	17	43	46	43	35	27	21	17	30	27	30	37	41
F5-4602	KORBEL	ABS.MAX.	85	81	82	85	75	74	-	62	75	66	70	80	78
		AVG.MAX.	66.5	75.3	74.1	72.1	66.2	60.7	-	53.3	64.4	59.0	59.7	63.9	72.0
		AVERAGE	55.6	62.2	63.5	62.6	56.4	52.0	-	43.8	55.8	49.2	50.5	56.0	60.2
		AVG.MIN.	45.1	49.2	52.9	53.1	46.7	43.4	-	34.2	47.1	39.3	41.3	48.1	48.5
		ABS.MIN.	24	42	44	45	39	31	-	24	36	31	34	37	41
F1-4838	LAVA BEDS NAT MON	ABS.MAX.	95	94	92	90	83	70	61	60	62	58	67	84	88
		AVG.MAX.	65.3	82.6	82.2	77.9	61.8	50.9	45.4	43.7	53.0	46.0	46.8	65.5	69.9
		AVERAGE	48.7	66.8	66.6	63.1	49.8	41.8	36.8	32.8	43.6	36.6	37.4	53.2	55.8
		AVG.MIN.	32.1	50.9	51.1	48.3	37.8	32.7	28.2	21.9	34.3	27.3	28.0	40.8	41.7
		ABS.MIN.	-5	39	38	34	23	15	9	-5	23	18	11	25	29
F2-5783	MONTAGUE	ABS.MAX.	100	-	-	100	84	71	61	53	67	68	73	94	97
		AVG.MAX.	72.	-	-	86.7	66.0	55.4	42.4	45.6	57.0	55.5	55.7	74.3	79.2
		AVERAGE	56.7	-	-	65.2	51.4	43.8	35.4	31.2	45.8	42.6	44.8	60.4	-
		AVG.MIN.	39.2	-	-	43.7	36.8	32.2	28.4	16.9	34.7	29.6	34.0	46.6	-
		ABS.MIN.	5	-	-	33	28	18	14	5	24	17	19	31	-

TABLE A-3 (Continued)

TEMPERATURE DATA FOR 1962-63

NORTH COASTAL AREA

Station			Temperature in Degrees Fahrenheit											
Number	Name	Season	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
F3-6499	ORICK 10 SE	ABS.MAX.	94	94	92	92	78	-	-	68	70	62	80	-	-
		AVG.MAX.	64.1	74	76	77	61	-	-	56	60	51	58	-	-
		AVERAGE	54.6	66	66	65	54	-	-	45	52	42	48	-	-
		AVG.MIN.	45.0	57	56	53	47	-	-	34	43	33	37	-	-
		ABS.MIN.	23	46	40	44	30	-	-	23	32	26	30	-	-
F3-8083-01	SEIAD VALLEY R S	ABS.MAX.	106	106	100	102	80	78	58	60	68	71	76	98	102
		AVG.MAX.	89.6	94.8	90.1	91.2	70.1	58.1	47.7	49.4	59.4	58.6	57.9	76.7	81.6
		AVERAGE	55.3	71.6	70.9	68.6	56.8	48.8	40.8	36.0	50.3	46.0	47.6	61.2	64.6
		AVG.MIN.	40.9	48.5	51.7	46.0	43.4	39.5	34.0	22.7	41.2	33.5	37.2	45.6	47.5
		ABS.MIN.	13	40	43	40	32	28	19	13	30	24	30	38	38
F6-8490	STANDISH HICKEY PARK	ABS.MAX.	92	92	88	90	76	72	64	56	66	64	64	80	92
		AVG.MAX.	64.2	83	77	76	65	58	53	51	61	55	52	66	73
		AVERAGE	54.0	68	62	63	56	50	46	42	53	46	46	56	62
		AVG.MIN.	43.8	52	47	50	46	43	39	32	45	38	40	45	50
		ABS.MIN.	22	48	53	46	38	30	24	22	36	32	34	36	42
F7-8899	THORN 2 NW	ABS.MAX.	97	97	96	96	92	90	80	-	-	-	-	-	-
		AVG.MAX.	-	87	83	83	74	69	68	-	-	-	-	-	-
		AVERAGE		67	66	65	59	54	53	-	-	-	-	-	-
		AVG.MIN.	-	47	49	47	44	40	38	-	-	-	-	-	-
		ABS.MIN.	-	41	40	40	35	29	23	-	-	-	-	-	-
F1-9057	TULELAKE INSP STN	ABS.MAX.	94	94	93	93	85	72	58	55	66	60	59	63	87
		AVG.MAX.	60.2	84.8	82.5	80.5	63.4	51.2	45.5	44.1	52.4	48.5	45.2	52.7	72.3
		AVERAGE	45.7	64.4	62.8	60.6	47.5	39.6	34.4	28.2	40.3	35.6	35.0	44.8	55.7
		AVG.MIN.	31.2	44.1	43.1	40.6	31.6	27.9	23.2	12.2	28.2	22.8	24.8	37.0	39.1
		ABS.MIN.	-5	36	30	28	24	8	6	-5	13	12	4	25	28

TABLE A-4

EVAPORATION DATA FOR 1962-63
NORTH COASTAL AREA

Station		Evaporation in Inches												
Number	Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
F6-3030-01	Ferndale 2 NW									Inc	3.06	3.40	5.22	
F3-8083-01	Sciad Valley R. S.											Inc	6.62	
F4-9024	Trinity Dam Vista Point	11.47	8.62	6.72	2.63b	1.13b	4.08b			Inc	2.08	5.50	9.11	
F1-9053	Tulelake	Inc	8.29	6.38	2.38						3.01b	7.02	8.16	

b - Partially estimated.

Inc- Incomplete.

APPENDIX B

SURFACE WATER FLOW

TABLE OF CONTENTS

TABLES

The Surface Water Measurement Program is a long-term, continuing, basic data activity of the Department, providing accurate measurements of water stages and corresponding streamflow discharges.

The program incorporates both field and office activities. The field activities include the installation and maintenance of gaging stations as well as the actual measurement of streamflow. The office work includes the preparation of data for computation by machine methods. This consists of developing a rating curve for each streamflow station from a series of instantaneous discharge measurements, and a related formula. Manual computation of discharge is required when the direct stage-discharge relationship has been destroyed by ice forming on the control or by backwater from a tributary or control structure downstream.

Definition of Terms

The following terms are used:

Second-foot or cubic foot per second is the unit rate of discharge of water. It is a measure of a cubic foot of water passing a given point in one second.

Acre-foot is the quantity of water required to cover one acre to a depth of one foot. It is equivalent to 43,560 cubic feet or 325,850 gallons.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, which is enclosed by a drainage divide.

Water year is the 12-month period from October 1 of one year through September 30 of the subsequent year and is normally designated by the calendar year in which it is terminated.

The data shown in Table Nos. B-1 through B-8 have been determined from observations during the current year by Department personnel. Measurement procedures which have been employed are consistent with those used by the U. S. Geological Survey.

Accuracy of the flow records range between "excellent" (less than 5 percent error) and "good" (less than 10 percent error). The records of monthly and seasonal mean discharge and runoff are generally more accurate than the daily flow records.

When flows at a single station are in excess of 140 percent of the highest measurement on the rating curve, the computed daily mean discharges from the electronic computer are shown as "estimates". Normally, the rating is good where there is a fixed channel and flow regimen at the station. The rating varies, of course, where aquatic growth or shifting sands are present. Where the rating is not permanent more frequent measurements of discharge are necessary.

Locations of individual measurement stations are given in the tables of flow. Location numbers have been assigned in accordance with the Department's "Hydrologic Procedures Manual".

The location number is a six-digit number. The first letter designates the hydrographic area; the first number the river basin; the second number the reach of the stream. The last three numbers are sequence numbers assigned to a specific station. The sequence numbers begin at the downstream end of the reach.

The streamflow tables are arranged in a downstream order. Stations on a tributary entering between two main stem stations are listed between those stations and in downstream order. A stream gaging station normally derives its name from the stream and the nearest post office (e.g., Weaver Creek near Douglas City).

An automatic water stage recorder is in operation at all of the Department's gaging stations in the North Coastal Area.

Following are the significant figures used in reporting streamflow data, consistent with the accuracy of measurements obtained:

1. Daily flow - Second-feet

0.0 - 9.9	Tenths
10 - 99	2 Significant figures
100 - above	3 Significant figures

2. Mean flows - Second-feet

0.0 - 99.9	Tenths
100 - 999	3 Significant figures
1000 - above	4 Significant figures

The water year totals are reported to a maximum of four significant figures.

Station descriptions and historical data are provided at the bottom of each table of flow. Gage heights are in feet above assumed "local" datum planes.

The eight surface water measurement stations measured by the Department in the North Coastal Area are located on Plate 3.

TABLE B-1

DAILY MEAN DISCHARGE

SHASTA RIVER AT EDGEWOOD

STATION NO	WATER YEAR
[illegible]	[illegible]

IN SECOND FEET

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR	MAY	JUNE	JULY	AUG	SEPT	DAY
1	[illegible]	[illegible]	145	[illegible]	[illegible] *	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	[illegible]	1
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	[illegible]	2
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	[illegible]	3
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	[illegible]	4
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	[illegible]	5
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6
7	[illegible]	[illegible]	157	[illegible]	[illegible]	[illegible]	174	174	7[illegible]	[illegible] E	[illegible]	[illegible]	7
8	[illegible]	[illegible]	148	[illegible]	[illegible]	[illegible]	142	[illegible]	7[illegible]	[illegible] E	NR	NR	8
9	[illegible] *	[illegible]	141	[illegible]	[illegible]	[illegible]	125 *	1[illegible]	[illegible]	[illegible] E	NR	NR	9
10	[illegible]	[illegible]	136	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	NR	10
11	[illegible]	[illegible]	[illegible]	134 *	[illegible]	[illegible] *	8[illegible] *	12[illegible]	[illegible]	[illegible] E	NR	NR	11
12	131[illegible] E	11[illegible]	12[illegible]	7[illegible]	[illegible]	[illegible]	[illegible]	10[illegible]	[illegible]	[illegible] E	NR	NR	12
13	[illegible]	[illegible]	142	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	NR	13
14	[illegible]	[illegible] *	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible] E	NR	NR	14
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	NR	15
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	NR	16
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	NR	17
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] *	[illegible]	[illegible] E	NR	NR	18
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible] #	19
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	20
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] *	[illegible]	[illegible]	[illegible] E	NR	[illegible]	21
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	22
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	23
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	24
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	25
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	26
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	27
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	28
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	29
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	30
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	[illegible]	31
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NR	NR	MEAN
MAX.	131[illegible] E	97[illegible]	5[illegible]	77[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NR	NR	MAX.
MIN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] E	NR	NR	MIN.
AC.FT.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NR	NR	AC.FT.

E - Estimated
NR - No Record
* - Discharge measurement or observation of no flow made on this day.
# - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT.	MO	DAY	TIME	DISCHARGE	GAGE HT.	MO	DAY	TIME	ACRE-FEET
NR	[illegible] E	7.37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NR

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T&R M.D.B.&M.	C.F.S.	GAGE HT.	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF DATUM
41 36 20	122 26 18	SE20 42N 5W	2520 E	7.37	10/12/62	MAR 61-DATE	MAR 61-DATE	1961		0.00	LOCAL

Station located on downstream side of Edgewood Road Bridge, 1.2 miles north of Edgewood. Tributary to Dwinnell Reservoir.
Stage-discharge relationship at times affected by ice.

TABLE B-2

DAILY MEAN DISCHARGE

LITTLE SHASTA RIVER NEAR MONTAGUE

STATION NO.	WATER YEAR
F21300	1963

DAY	OCT	NOV	DEC.	JAN.	FEB.	MAR.	APR	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	4.9	5.1	26	10	206 F	29	24	43	21	8.9	5.5	4.2E	1
2	5.8	5.1	97 F	11	90 E	27	20	43	20	8.6	5.7	4.2E	2
3	6.4	5.1	94 F	13	189 E	26	20	45	19	8.5	5.3	4.2#	3
4	5.5	5.5	45	11	109 E	24	20	46	19 *	7.5	5.6	4.0	4
5	5.6	6.2	34	9.1	67 E	23	38 E	46	21	7.4	5.0	4.0	5
6	5.0	5.6	27	8.9	53	24	112 E	46	19	7.3	4.8	4.0	6
7	5.4	5.5	22	7.5#	43	22	93 E	54 *	17	7.1	5.0	3.7	7
8	6.3	5.5	19	6.5E	39	21	59	51	16	7.3	5.1	4.0	8
9	22 *	6.4	17	6.0E	31 E	20	51	51	14	7.1	5.1	4.2	9
10	77 F	8.0	16	5.0E	27 E	19	47	47	15	6.8	5.0	4.2	10
11	79 F	11	14 *	5.0E	26 #	18	42	53	16	7.0	4.8	4.2	11
12	208 F	24	15	5.0E	25	18	36	48	15	7.3	4.8	4.3	12
13	92 F	14	15	5.0E	25	16	35	43	14	7.1	4.8	4.3	13
14	47	9.0	18	5.0E	22	17	142 E	39	12	6.7	4.8	4.2	14
15	35	7.5*	45	5.0E	21	17	84 E	41	11	5.8	4.8	4.0	15
16	21	7.4	34	5.0E	23	17	59	37	12	6.1*	5.1	4.2	16
17	17	7.5	48	5.0E	23	16	49	36	13	6.4	5.1	4.0	17
18	13	8.6	35	5.0E	34	16	45	35	15	6.4	5.0	4.0	18
19	11	9.2	25	5.0E	40	23	42	34	14	6.5	4.8	4.2	19
20	9.7	8.8	22	5.0E	74 F	28	37	33	11	5.8	4.9*	4.0	20
21	8.6	12	19	5.0E	51	26	34	33	11	6.0	5.3	4.2	21
22	7.9	13	19	5.0E	39	22	39	32	12	5.7	5.3	4.0	22
23	7.3	10	14	5.0E	34	21	44	31	12	5.6	5.1	3.8	23
24	6.6	8.4	13	5.0E	31	19	42 *	30	11	5.5	5.1	3.8E	24
25	6.6	8.4	16	5.0E	32	17 *	36	28	10	5.3	5.1	3.8E	25
26	6.6	86 E	12	4.5E	41	17	35	27	9.6	5.3	5.1	3.8E	26
27	6.8	41	12	5.0E	31	20	34	26	9.4	5.2	5.1	3.6E	27
28	6.2	23	14	5.0E	30	26	40	26	11	4.8	4.8	3.6E	28
29	6.2	13	13	5.5		25	46	25	12	5.1	4.8	3.3E	29
30	6.0	17	14	5.4		27	47	23	10	5.8	4.5	3.3E	30
31	5.8		12	70 F		32		22		5.7	4.2E		31
MEAN	24.2	13.2	26.6	8.3	52.0	21.7	48.4	37.9	14.1	6.5	5.0	4.0	MEAN
MAX.	208 F	86.0E	97.0E	70.0E	206 E	32.0	142 E	54.0	21.0	8.9	5.7	4.3	MAX.
MIN.	4.8	5.1	12.0	4.5E	21.0	16.0	20.0	22.0	9.4	4.8	4.2E	3.3E	MIN.
AC.FT.	1490	788	1638	513	2888	1335	2880	2329	837	400	308	237	AC.FT.

E - Estimated
NR - No Record
* - Discharge measurement or observation of no flow made on this day.
# - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-FEET
21.6	525 E	4.23	10	12	1840	0.3	1.44	1	12	0300	15640

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T B R M O B B M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF DATUM
			C F S	GAGE HT	DATE			FROM	TO		
41 48 11	122 17 56	NW25 45N 4W	7141 E	4.76	11 15 57	28-NOV 51 ¤ APR 58-APR 59 SEP 59-DATE	28-NOV 51 ¤ APR 58-APR 59 SEP 59-DATE	1956		0.00	LOCAL

Station located south of Bell Mountain Road, 12 miles northeast of Montague, 14 miles southwest of MacDoel. Stage-discharge relationship at times affected by ice. Drainage area is 681 square miles.

¤ - Irrigation season only

TABLE B-3

DAILY MEAN DISCHARGE

ETNA CREEK NEAR ETNA

STATION NO	WATER YEAR
F25620	1963

DAY	OCT.	NOV	DEC.	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG.	SEPT	DAY
1	4.5	25	136	39	558 E	57	49	113 E	98 E	19	4.5	4.9	1
2	5.1	23	1100 E	38	378 E	55	44	115 E	86 E	18	4.4	4.4	2
3	6.5	22	450 E	39	928 E	52	43	115 E	76 E	17	4.3	3.9	3
4	5.5	22	256	36	439 E	50	45	119 E	66 E	17	4.2	4.3	4
5	5.1	23	191	34	326 E	48	213 E	195 E	61	16	4.1	4.7	5
6	5.0	21	155	33	252	47	446 E	173 E	56	16	3.9	5.1	6
7	6.8	20	131	34 E	201	45	257	183 E	52	16	4.7	5.2	7
8	29	19	113	31 E	180	42	180	177 E	50	15	5.9	4.6	8
9	227	44	101	31 E	158	40	140	159 E	48	13	6.1	4.0	9
10	200	35	93	30 E	138	37	118	145 E	45	13	6.1	3.9	10
11	281 E	117	87	29 E	121 *	36 *	101	135 E	44	12	5.7	4.1	11
12	438 E	230	80 *	28 E	119	35	96	125 E	42	11	5.2	4.6	12
13	287 E	149	82	27 E	111	34	103	116 E	43	11	5.1	5.0	13
14	167	107	80	27 E	100	35	145	113 E	43	10	4.6	5.9	14
15	122	85	206	26 E	92	34	135	135 E	38	9.8	4.6	5.8	15
16	94	71	166	25 E	88	35	109	169 E	39	9.8	4.5	5.7	16
17	80	64	141	25 E	81	33	95	211 E	37	9.5	4.7	5.6	17
18	71	57	114	24 E	97	32	87	254 E	32 *	9.3	4.6	4.6	18
19	68	51	94	23 E	101	33	78	309 E	30	8.8	4.4	2.8	19
20	64	48	84	23 E	98	34	71	346 E	27	8.7	4.7*	2.7	20
21	60	48	77	22 *	91	34	66	283 *	27	8.5	4.7	2.8	21
22	55	53	71	25 E	83	33	63	249 E	30	7.6	4.6	2.7	22
23	51 *	45	65	18	78	34	63	229 E	28	7.5	4.7	2.6	23
24	46	40	58	8.2	72	33	64 *	213 E	25	7.3	4.9	2.5	24
25	42	49	54	9.9	70	32 *	67	195 E	23	7.0	4.7	2.4	25
26	39	410 E	51 *	12	72	36	63	181 E	22	6.8	4.3	2.4	26
27	36	208	50	13	64	53	64	165 E	21	6.8	4.1	2.1	27
28	33	140	48	13	61	58	72	150 E	23	6.3	3.9	2.2	28
29	30	111	44	15		59	94	136 E	23	5.8	3.9	2.2	29
30	27	119	45	28		62	115 E	124 E	21	5.5	5.5	2.2	30
31	26		42	376 E		57		110 E		5.3	5.9		31
MEAN	84.2	81.9	144	36.8	184	42.1	110	176	41.9	10.8	4.8	3.9	MEAN
MAX.	438 E	410 E	1100 E	376 E	928 E	62.0	446 E	346 E	98.0E	19.0	6.1	6.0	MAX.
MIN.	4.5	19.0	42.0	8.2	61.0	32.0	43.0	110 E	21.0	5.3	3.9	2.1	MIN.
AC.FT.	5180	4871	8856	2265	10230	2588	6518	10790	2491	663	293	232	AC.FT.

E - Estimated
NR - No Record
* - Discharge measurement or observation of no flow made on this day.
# - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM				MINIMUM				TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT.	MO	DAY	TIME	ACRE-FEET
75.9	2090 E	11.55	12	2	1440	1.6	6.2	9	30	2000	54980

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T&R M D B&M	OF RECORD CFS	GAGE HT	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF DATUM
41 29 53	122 5- 57	NE6 41N 5W				SEP 56-JUN 59 JUN 60-DATE	SEP 56-JUN 59 JUN 60-DATE	1957		1.00	LOCAL

Station located south of Sawyers Bar-Etna Highway, 2.1 miles southwest of Etna. Tributary to Scott River. Stage-discharge relationship at times affected by ice. Flow influenced by upstream diversion dam of city of Etna. Drainage area is 30.1 square miles.

TABLE B-4

DAILY MEAN DISCHARGE

MOFFETT CREEK NEAR FORT JONES

STATION NO.	WATER YEAR
F25420	1963

DAY	OCT.	NOV	DEC.	JAN.	FEB.	MAR	APR	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	1.5	3.6	21	21	78 E	30	12	59 E	25	11 *	2.1	1.8	1
2	1.6	3.5	201 F	20	83 E	30	13	58 E	24	10 *	1.6	1.8	2
3	1.7	3.6	211 F	22	294 E	30	12	57 E	23	10	1.3	1.7*	3
4	1.6	3.6	122 F	21	270 E	28	12	60 E	23	9.9	1.2	1.4	4
5	1.6	3.9	89 F	19	210 E	28	13	55 E	22	10	1.1	1.2	5
6	1.6	3.9	66 F	18	164 E	28	21	52 E	22	10	1.24	1.1	6
7	1.6	3.6	50 F	17 *	128 E	28	24	51 *	21	10	1.3	1.2	7
8	2.0	3.6	47 F	18	108 E	27	24	47 E	20	9.2	1.2	1.1	8
9	2.4*	3.6	38 F	16	93 E	28	23	35 E	19	8.2	1.2	0.9	9
10	2.6	3.6	34 F	15	81 E	26	23	35 E	19	8.0	1.1	1.2	10
11	4.7	4.5	30	11	69 *	26 *	23	35 E	18	7.3	1.3	1.0	11
12	19	6.1	30 *	10	66 E	25	22	35 E	17	7.0	1.4	0.8	12
13	21	6.1	27	8.0	56 E	24	21	35 E	17	6.9	1.4	0.7	13
14	15	6.3*	26	9.7	51 E	24	28	35 E	16	6.4	1.4	0.7	14
15	11	5.9	34 E	9.1	49 E	24	40 E	25 E	16	6.3	1.5	0.6	15
16	8.2	5.1	38 E	8.3	50 E	24	100 E	25 E	16	6.1	1.7	0.5	16
17	6.1	5.6	45 E	8.5	48 E	15	90 E	29 E	17	5.6	2.1	0.5	17
18	5.4	4.8	42 E	7.4	45 E	13	80 E	32 E	17 *	5.5	2.3	0.6	18
19	5.3	4.7	40 E	7.1	46 E	12	80 E	30 E	16	5.4	2.4	0.5	19
20	4.9	4.6	39 E	7.3	45 E	11	80 E	36 E	15	5.3	2.3	0.5	20
21	4.5	5.0	38 E	6.6	45 E	11	80 E	42 *	15	4.0	2.0	0.5	21
22	4.7	5.1	36 E	6.6	43 E	10	80 E	40 E	15	2.2	2.0	0.6	22
23	4.4	5.1	34 E	6.6	40 E	9.7	80 E	42 E	14	2.6	2.2	0.7	23
24	3.9	4.7	32 E	5.9	37 E	9.1	79 *	37 E	13	2.6	2.1	0.6	24
25	3.7	4.5	29	5.9	36 E	9.1	86 E	34 E	11	3.0	1.5	0.6	25
26	3.7	74 E	29	5.9	36 E	9.8	84 E	36 E	13	3.1	1.5	0.7	26
27	4.1	52 *	26	5.3	35 E	12	75 E	36 E	13	4.7	1.3	0.8	27
28	3.9	38 E	25	5.3	33 E	12	71 E	28 E	13	3.6	1.3	0.8	28
29	3.8	27 E	24	5.3		13	68 E	30 E	12	2.8	1.2	0.8	29
30	3.8	23	23	5.4		13	64 E	28 *	11	2.7	4.0E	1.0	30
31	3.4		23	33 E		13		25		2.9	2.6		31
MEAN	5.0	11.0	50.0	11.8	83.5	19.4	50.3	38.9	17.1	6.2	1.7	0.9	MEAN
MAX.	21.0	74.0E	211 F	33.0E	294 E	30.0	100 E	60.0E	25.0	11.0	4.0E	1.8	MAX.
MIN.	1.6	3.6	21.0	5.3	33.0E	9.1	12.0	25.0E	11.0	2.2	1.1	0.5	MIN.
AC.FT.	309	652	3072	724	4639	1195	2991	2390	1018	381	105	53	AC.FT.

E - Estimated
NR - No Record
* - Discharge measurement or observation of no flow made on this day.
# - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-FEET
24.2	749 E	3.42	12	2	1440	0.5	2.31	9	16	2400	17530

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LAT TUDE	LONGITUDE	4 SEC T B R M O B B M	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			C.F.S.	GAGE HT	DATE			FROM	TO		
41 [illegible]	[illegible]	[illegible]	[illegible] E	[illegible]	[illegible]	OCT 56-OCT 5[illegible] OCT 57-CURR	OCT 56-OCT 5[illegible] OCT 57-CURR	[illegible]		[illegible]	LOCAL

Station located 1[illegible] feet above Old Fort Jones-Etna Highway Bridge, 2.1 miles northeast of Fort Jones. Tributary to Scott River. Stage-discharge relationship at times affected by ice. Drainage area is [illegible] square miles.

TABLE B-5

DAILY MEAN DISCHARGE

BEAVER CREEK NEAR DOUGLAS CITY

STATION NO.	WATER YEAR
6415400	1963

DAY	OCT.	NOV	DEC.	JAN.	FEB.	MAR	APR	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	5.4	16	59	26	882 E	58	207	127	73	20	6.3	2.9	1
2	5.6	17	713 E	25	550 E	55	187	122	69	17 *	5.6	2.6	2
3	6.8	16	245 E	24	473 E	52	205	124	66	18 E	5.6	2.4	3
4	7.5	15	116	23	269	48	187	122	62	17	5.3	2.4	4
5	8.2	15	84	21	213	46	412 E	136	59	17	5.0*	2.2*	5
6	9.1	15	66	22	193	45	523 E	136	57	16	4.9	2.9	6
7	9.9	15	55	21	166	43	348 E	136	54	16	3.9*	2.5	7
8	12	16	47	20	166	40	261 *	135	52	15	4.1	2.1	8
9	17	17	41	19 *	189	40	217	127	48	14	4.1	1.9	9
10	48	18	37	20	243	37	203	128	48	14	4.7	1.8	10
11	93 *	24	33	18	200	34	182	119	47	14	4.0	2.0	11
12	222	36	29	18	404 E	33	201	113	45	13	3.6	2.2	12
13	97	30	33	14 E	365 #	31 *	197	107	43	13	3.6	2.2	13
14	69	24	32 *	14 E	211	33	463 E	107	41	12	3.3	2.3	14
15	42	22	155	14 E	161	31	370	110	39	12	3.1	2.4	15
16	32	21	109	14 E	162	41	268	115	41	12	3.5	2.5	16
17	27	21	97 *	14 E	143	38	212	120	41	11	3.1	2.2	17
18	25	20	80	14 E	137	38	215	126	37	11	2.9	4.2	18
19	23	20	70	14 E	125	37	233	131	34	11	2.9	3.6	19
20	22	19	61	14 E	117	39	189	134	32	10	2.7	2.8	20
21	22	19	54	12 E	107	40	166	132	29	9.6	2.9	3.4	21
22	21	19	47	12 E	96	41	146	128	28	9.2	3.1	3.7	22
23	20	19	44	12 E	90	55	133	124 *	29	8.7	3.3	3.7	23
24	18	19	40	12 E	81	50	126	119	28	8.7	3.5	3.4	24
25	18	19	37	12 E	76	47	154	110	25	8.2	3.6	3.2	25
26	18	574 E	34	12 E	71	50	136	102	23	7.9	3.2	3.0	26
27	16	115	33	12 E	66	759 E	126	96	23	7.5	3.1	2.4	27
28	17	70	30	12 E	62	545 E	124	92	21	7.1	2.9	2.1	28
29	16	51	28	12 E		325	124	89	21	7.1	3.0	1.9	29
30	16	45	28	112		267	125	83	21	6.7	2.9	1.9	30
31	16		28	2280 E		240		76		6.7	3.2		31
MEAN	31.7	44.9	82.7	92.5	215	105	225	117	41.2	12.0	3.8	2.7	MEAN
MAX.	222	574 E	713 E	2280 E	882 E	759 E	523 E	136	73.0	20.0	6.3	4.2	MAX.
MIN.	5.4	15.0	28.0	12.0E	62.0	31.0	124	76.0	21.0	6.7	2.7	1.8	MIN.
AC.FT.	1947	2672	5088	5691	11940	6422	13390	7192	2452	736	233	162	AC.FT.

E - Estimated
NR - No Record
* - Discharge measurement or observation of no flow mode on this day.
# - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-FEET
80.0	7380 E	11.40	6	31	1615	NR					57920

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T B R M D B&M	CFS	GAGE HT	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF DATUM
46 [illegible] 23	122 56 33	SE3e 34N 10W	7381 E	11.40	6 31 63	JAN 57-DATE	JAN 57-DATE	1957		.0	LOCAL

Station located 0.2 mile below U. S. Highway 2[illegible] Bridge, 1.2 miles north of Douglas City, [illegible] miles south of Weaverville. Tributary to Trinity River. Drainage area is [illegible] square miles.

TABLE B-6

DAILY MEAN DISCHARGE

BROWNS CREEK NEAR DOUGLAS CITY

STATION NO.	WATER YEAR
F41510	1963

DAY	OCT	NOV	DEC.	JAN.	FEB.	MAR.	APR	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	6.2	12	39	35	614	82	275	194	58	20	8.5	6.9	1
2	5.3	12	175	33	388	80	224	185	57	19	8.5	6.4	2
3	4.6	12	277	32	323	76	214	172	55	19	7.6	5.8	3
4	4.0	13	135	31	276	73	194	166	53	19	7.6	5.7	4
5	4.0	13	93	28	215	70	270	166	50	19	7.7	5.9	5
6	4.4	13	75	27	169	69	378	156	50	19	8.4	6.9	6
7	5.2	12	65	27	140	66	375	146 *	49	19	8.5	7.0	7
8	6.4	13	56	25	134	65	328 *	138	48	18	7.7	6.4	8
9	8.7	13	49	24 *	265	65	292	129	45	18	9.1	5.7	9
10	46	14	44	23	1120	59	279	135	43	16	8.9	5.9	10
11	110	15	41	22	652	56	261	127	43	16	8.1	5.2*	11
12	289 *	16	38	22 E	554	54	344	120	40	15	7.1	5.0	12
13	191	15	38	22 E	727	53 *	557	116	39	15	7.4	5.4	13
14	90	14	35 *	22 E	491	53	983	111	37	15	6.6	5.6	14
15	49	14	99	22 E	369	51	802	104	36	14	6.3	5.5	15
16	42	14	124	22 E	315	58	588	102	37	14	6.2	5.9	16
17	33	14	114 *	22 E	266	50	473	99	38	14	6.0	6.8	17
18	23	14	102	22 E	221	48	401	96	34 *	13	6.0	6.9	18
19	21	14	89	22 E	190	47	372	94	31	13	5.6	6.7	19
20	19	13	80	22 E	166	48	332	92	29	12	5.8	6.2	20
21	17	13	74	22 E	144	49	302	89	27	12	5.9*	5.7	21
22	16	13	65	22 E	129	53	278	87	27	12	5.4	5.9	22
23	15	13	61	21 E	116	86	256	90	27	11	6.1	6.1	23
24	15	13	56	20 E	109	80	244	85	25	11	6.7	6.2	24
25	14	13	50	19 E	103	75	255	81	22	11	7.1	5.8	25
26	14	155	48	18 E	96	78	248	77	22	12	6.7	5.5	26
27	14	112	46	17 E	91	584	235	71	20	10	6.2	5.2	27
28	13	68	43	16 E	87	744	224	68	20	9.8	5.7	5.3	28
29	13	49	40	15		419	217	69	20	8.9	5.5	5.0	29
30	13	40	38	23		353	206	64	20	8.6	5.8	5.7	30
31	13		37	338		312		62		8.7	6.6		31
MEAN	36.6	25.3	75.0	33.4	303	131	347	113	36.7	14.3	6.9	5.9	MEAN
MAX.	289	155	277	338	1120	744	983	194	58.0	20.0	9.1	7.0	MAX.
MIN.	4.0	12.0	35.0	15.0	87.0	47.0	194	62.0	20.0	8.6	5.4	5.0	MIN.
AC.FT.	2251	1505	4614	2055	16800	8045	20640	6924	2186	877	427	353	AC.FT.

E - Estimated
NR - No Record
* - Discharge measurement or observation of no flow made on this day.
# - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-FEET
92.1	1270	12.89	3	27	2020	3.5	7.95	10	4	0250	66680

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE		
LATITUDE	LONGITUDE	1/4 SEC T & R M O B & M	OF RECORD C.F.S.	GAGE HT	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	TO	ZERO ON GAGE	REF DATUM
+/- 39° 35'	123° 20' +/-	SE1/4 SEC 24N	1951 E	10.61	2 Jan 51	JAN 51-DATE	JAN 51-DATE	1951		[illegible]	LOCAL

Station located at private bridge, 6.1 miles west of Douglas City. Tributary to Trinity River. Stage-discharge relationship at times affected by ice. Drainage area 58 [illegible] square miles.

TABLE B-7

DAILY MEAN DISCHARGE

NORTH FORK TRINITY RIVER AT HELENA

STATION NO	WATER YEAR
F42100	1963

DAY	OCT.	NOV	DEC.	JAN	FEB.	MAR.	APR	MAY	JUNE	JULY	AUG.	SEPT	DAY
1	37	129	636	224	3950	328	926	992	490	152	70	35	1
2	36	123	4590	212	2300	313	704	897	459	149	67	34	2
3	50	119	3590	209	3000	297	624	978	401	154	66	33	3
4	49	116	1750	196	2280	280	575	1020	360	156	63	31	4
5	41	119	1120	185	1820	267	1760	1560	354	162	62 *	31	5
6	40	114	821	177	1410	257	3430	1640	338	163	58	32	6
7	41	107	667	164	1110	244	2560	1550	326	160	57	31	7
8	144	102	566	156	943	231	1830	1300	330	149	57	31	8
9	670	131	495	153 *	833	225	1470	1010	340	141	62	29	9
10	1300	164	443	149	953	214	1250	867	367	140	62	29	10
11	2180 *	321	400	140	790	202	1030	771	318	141	57	29 *	11
12	4270	797	366	130	877	195	1320	702	326	136	54	31	12
13	2330	569	507	138	1190 *	186 *	2210	670	351	147	51	35	13
14	1340	391	495 *	135	1000	189	3210	662	384	145	49	32	14
15	917	314	1650	127	809	181	2640	702	383	132	46	30	15
16	626	274	1360	125	727	198	1860	776	372	120	44	30	16
17	495	245	968 *	121	673	181	1450	941	355	116	43	32	17
18	430	222	778	116	690	179	1210	1130	333	108	42	33	18
19	383	202	652	112	697	183	1050	1200	309	104	41	32	19
20	338	188	566	110	629	197	903	1270	271	103	40	30	20
21	301	183	501	107	573	205	823	1200	241	103	39	29	21
22	273	187	458	106	519	207	770	1060	217	99	37	28	22
23	241	176	413	102	474	246	746	969 *	208	94	36	28	23
24	218	162	379	99	440	241	762	853	181	92	36	28	24
25	202	162	345	97	411	237	778	749	175	88	36	27	25
26	186	2690	321	96	426	266	762	675	182	83	35	26	26
27	174	1470	301	94	380	1090	732	618	190	79	34	25	27
28	163	812	283	94	350	1600	760	611	178	79	33	24	28
29	153	587	266	97		1250	883	612	167	77	33	24	29
30	145	563	253	134		1330	994	639	153	74	33	24	30
31	136		238	2370		1280		546		72	38		31
MEAN	578	391	845	209	1081	403	1334	941	302	120	47.8	29.8	MEAN
MAX.	4270	2690	4590	2370	3950	1600	3430	1640	490	163	70.0	35.0	MAX.
MIN.	36.0	102	238	94.0	350	179	575	546	153	72.0	33.0	24.0	MIN.
AC.FT.	35520	23280	51920	12840	60010	24790	79380	57860	17970	7375	2938	1771	AC.FT.

E – Estimated
NR – No Record
* – Discharge measurement or observation of no flow made on this day.
# – E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-FEET
518	7890	16.41	12	2	1740	23.0	4.64	9	28	2400	375700

LOCATION			MAXIMUM DISCHARGE OF RECORD			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T B R M D B&M	CFS	GAGE HT	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF DATUM
40 46 56	123 07 39	SW21 34N 11W	13500	19.66	1/12/59	JAN 57-DATE	JAN 57-DATE	1957		0.00	LOCAL

Station located 1.0 mile above mouth, 0.6 mile north of Helena. Stage-discharge relationship at times affected by ice.
Drainage area is 151 square miles.

TABLE B-8

DAILY MEAN DISCHARGE

BIG CREEK NEAR HAYFORK

STATION NO.	WATER YEAR
F44500	1963

DAY	OCT	NOV	DEC.	JAN	FEB.	MAR.	APR	MAY	JUNE	JULY	AUG.	SEPT	DAY
1	0.0	6.4	32	22	259 E	39	126	92	21	14	0.0	0.0	1
2	0.0	5.8	188 E	21	176	38	106	89	20	13	0.0	0.0	2
3	0.0	6.4	166 E	20	136	36	101	88	19	14	0.0	0.0	3
4	0.0	5.8	79	20	109	34	89	86	20	16	0.0	0.0	4
5	0.0	6.4	55 *	19	90	34 *	164 E	88	20	12	0.0	0.0	5
6	0.0	6.4	44	18	83	32	282 E	85	19	11	0.0	0.0	6
7	0.0	6.4	36	17	72	32	237	81 *	19	11	0.0	0.0	7
8	0.0	6.4	32	16	70	31	203 *	76	18	9.4	0.0	0.1	8
9	4.0	6.4	28	16 *	87	29	182	71	18	9.0	0.0	0.0	9
10	20	8.1	25	17	138	27	163	72	17	8.6	0.0	0.0	10
11	37	11	24	17	120	26	142	68	16	8.1	0.0	0.1	11
12	91 *	20	23	15	158	26	192	65	15	7.0	0.0	0.3	12
13	55	15	31	14 E	200 *	25	319 E	62	15	7.5	0.0	0.2	13
14	45	11	26 *	13 E	147	26	403 E	60	15	7.0	0.0	0.0	14
15	26	7.8*	92	12 E	114	27	353 E	56	14	5.3	0.0	0.3	15
16	18	8.1	73	11 E	106	28	267 E	53	15	4.8	0.0	0.0	16
17	13	8.6	59	10 E	91	27	207	51	16	5.3	0.0	0.7	17
18	11	8.5	49	10 E	81	26	177	49	14 *	3.9	0.0	0.6	18
19	10	9.3	42	10 E	75	25	158	48	13	3.4	0.0	0.9	19
20	9.4	8.7	37	10 E	70	26	136	46	14	3.0	0.0	0.7	20
21	8.1	8.6	33	10 E	65	26	119	45	18	2.2	0.0	0.5	21
22	8.1	10	32	10 E	60	26	108	44	19	1.8	0.0	0.9	22
23	7.0	11	29	10 #	54	29	102	42	17	1.8	0.0	0.9	23
24	7.0	11	27	10 E	51	28	101	39	17	1.8	0.0	0.6	24
25	6.4	12	26	10 E	47	27	104	38	18	1.5	0.0	0.0	25
26	7.0	109	24	10 E	46	33	102	34	17	0.8	0.0	0.3	26
27	7.0	75	23	10 E	42	199 #	96	31	17	0.0	0.0	0.4	27
28	7.5	46	23	10 E	41	222 E	93	30	16	0.0	0.0	0.5	28
29	7.0	35	22	11 E		167	95	29	16	0.0	0.0	0.0	29
30	7.5	32	22	25		158	94	26	15	0.0	0.0	1.0	30
31	6.4		22	159 E		153		22		0.0	0.0		31
MEAN	13.5	17.4	45.9	18.8	99.6	53.6	167	57.0	16.9	5.9	0.0	0.3	MEAN
MAX.	91.0	109	188 E	159 E	259 E	222 E	403 E	92.0	21.0	16.0	0.0	1.0	MAX.
MIN.	0.0	5.8	22.0	10.0E	41.0	25.0	89.0	22.0	13.0	0.0	0.0	0.0	MIN.
AC.FT.	830	1036	2824	1156	5530	3297	9959	3503	1008	363		18	AC.FT.

E - Estimated
NR - No Record
* - Discharge measurement or observation of no flow made on this day
# - E and *

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT	MO	DAY	TIME	DISCHARGE	GAGE HT	MO	DAY	TIME	ACRE-FEET
40.8	435 E	8.44	4	14	0600	0.0		10	1	0000	29520

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC T B R M D B&M	DF RECORD CFS	GAGE HT	DATE	DISCHARGE	GAGE HEIGHT ONLY	PERIOD FROM	PERIOD TO	ZERO ON GAGE	REF DATUM
40 33 11	123 36 33	SE7 5N 11W	1540 E	9.25	[illegible]/55	FEB 57-DATE	FEB 57-DATE	1957		0.00	LOCAL

Station located 30 feet above Hayfork-Douglas City Highway Bridge, 2 miles east of Hayfork. Tributary to South Fork Trinity River via Hayfork Creek. Flow influenced by upstream diversion east of City of Hayfork. Drainage area is 27.5 square miles.

APPENDIX C

GROUND WATER MEASUREMENTS

TABLE OF CONTENTS

TABLES

GROUND WATER MEASUREMENTS

All studies of ground water problems, and plans for the solution of these problems, should be founded upon accurate records of ground water elevations obtained over a period of many years. This is true whether the problem is the determination of the safe yield of a ground water basin, an operation of a basin for cyclic storage in conjunction with surface water supplies, or the control of seawater intrusion.

The Department began the collection of ground water data in 1930, in conjunction with special investigations of water resources of specific areas, and has gradually developed a continuing program of basic data collection. Through cooperative activities with the federal and local agencies, coordinated and augmented by the Department, the program of ground water level measurements has gradually been expanded for adequate coverage in most basins.

Within the North Coastal Area the Department cooperates with the U. S. Geological Survey in the systematic observation of ground water levels in nine of the more important ground water basins. The field measurements are made by the U. S. Geological Survey. The review, processing and editing of the data is accomplished by the Department.

Wells are selected for measurement on the basis of geographical density, length of record, frequency of measurements, conformity to water level fluctuations in the basin and availability of a well log, mineral analyses and production records.

The depth to water in most of the wells is usually a direct measurement made with a tape. However, in some of the deeper wells measurements are made with an air line and gage or an electric sounder.

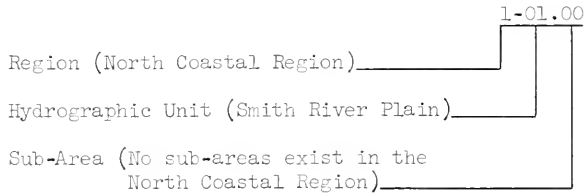
The ground water level measurements collected from the North Coastal Area basins during the 1962-63 fiscal year are included in Table C-1, "Ground Water Level Measurements". A summary of the average seasonal change in water levels in the nine ground water basins reported in this appendix are given in Figure 2 (Chapter II). "Average Ground Water Level Changes in North Coastal Area Basins".

NUMBERING SYSTEMS

Region and Basin Designations

All data presented in this appendix is within Region 1, a geographic area defined in Section 13040 of the Water Code. The nine ground water basins measured in the program during 1962-63 are shown on Plate 4.

A decimal system of the form 0-00.00 is used for basin numbering. The number to the left of the dash refers to the geographic region and the first two digits of the number on the right of the dash refer to the hydrographic unit, generally designated as a basin, valley or area. These are followed by a decimal which shows the sub-basin, area or sub-area within the basin, valley or area. Two zeros following the decimal denotes that there is no sub-basin, area or sub-area. An example is given below:



Well Numbering System

The State Well numbering system used in this report is based on the township, range and section subdivision of the Public Land Survey. It is the system used in all ground water investigations and for numbering all wells for which data is published or filed by the Department. In this report, the number of a well assigned in accordance with this system is referred to as the State Well Number.

Within the system each section is divided into 40-acre tracts lettered as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Wells are numbered within each 40-acre tract according to the chronological sequence in which they have been assigned State Well Numbers. For example, a well which has the number 16N/1W-2J1H would be in Township 16 North, Range 1 West, Section 2, Humboldt Base and Meridian, and would be further designated as the first well assigned a State Well Number in tract J. In this report well numbers are referenced to the Humboldt Base and Meridian (H), and the Mount Diablo Base and Meridian (M).

Agency Supplying Data

The code number assigned to the U. S. Geological Survey, the measuring agency for the wells listed in this appendix, is 5000.

Well Use

The use of water is indicated as follows:

Code	Well Use
(Blank)	Unknown
1	Domestic
2	Irrigation
3	Municipal
4	Industrial
5	Injection or Recharge
6	Drainage
7	Domestic and Irrigation
8	Test
9	Stock
0	Unused

Well Depth

Well depths shown were reported by the owner, obtained from a driller's log or measured at the time of the well canvass.

Reason for Questionable Measurement

If the water level measurement is of questionable reliability, the reason is indicated by the following code preceding the measurement:

Code	Reason
1	Pump operating
2	Nearby pump operating
3	Casing leaking or wet
4	Pumped recently
5	Air or pressure gage measurement
6	Other
7	Recharge operation at or nearby well
8	Oil in casing
0	Caved or deepened

Reason for No Measurement

If no measurement was made at a well scheduled to be measured, the reason for not making the measurement is indicated by the following code:

Code	Reason
1	Pump operating
2	Pump house locked
3	Tape hung up
4	Can't get tape into casing
5	Unable to locate well
6	Well has been destroyed
7	Special
8	Casing leaking or wet
9	Temporarily inaccessible
0	Measurement discontinued

TABLE C-1

GROUND WATER LEVEL MEASUREMENTS

STATE WELL NUMBER	WELL USE	WELL DEPTH IN FEET	PERIOD OF RECORD		GROUND SURFACE ELEVATION IN FEET	DATE	GROUND TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
			BEGIN	END					
NORTH COASTAL REGION 1-00.00									
SMITH RIVER PLAIN 1-01.00									
16N/01W-02J01 H	1	36	53		127.0	7-25-62	19.1	107.9	5000
						8-22-62	19.9	107.1	5000
						9-20-62	20.0	107.0	5000
						10-24-62	19.3	107.7	5000
						11-27-62	14.6	112.4	5000
						12-18-62	14.2	112.8	5000
						1-22-63	15.9	111.1	5000
						2-19-63	14.5	112.5	5000
						3-20-63	14.8	112.2	5000
						4-24-63	13.8	113.2	5000
						5-21-63	14.8	112.2	5000
						6-19-63	17.9	109.1	5000
16N/01W-17K01 H	1	40	53		48.0	7-25-62	18.8	29.2	5000
						8-22-62	19.8	28.2	5000
						9-20-62	(1) 27.6	20.4	5000
						10-24-62	21.2	26.8	5000
						11-27-62	19.6	28.4	5000
						12-18-62	18.9	29.1	5000
						1-22-63	16.1	31.9	5000
						2-19-63	15.5	32.5	5000
						3-20-63	15.3	32.7	5000
						4-24-63	8.2	39.8	5000
						5-21-63	8.8	39.2	5000
						6-19-63	15.2	32.8	5000
16N/01W-22Q02 H	1	33	58		39.0	7-25-62	17.0	22.0	5000
						8-22-62	16.4	22.6	5000
						9-22-62	(6)		5000
17N/01W-02P01 H	1	27	52		31.0	7-25-62	22.7	8.3	5000
						8-22-62	21.4	9.6	5000
						9-20-62	22.4	8.6	5000
						10-24-62	21.3	9.7	5000
						11-27-62	13.2	17.8	5000
						12-18-62	14.2	16.8	5000
						1-22-63	19.8	11.2	5000
						2-19-63	15.8	15.2	5000
						3-20-63	18.4	12.6	5000
						4-24-63	16.2	14.8	5000
						5-21-63	17.2	13.8	5000
						6-19-63	19.5	11.5	5000
18N/01W-26P01 H	7	28	52		38.0	7-25-62	22.5	15.5	5000
						8-22-62	21.5	16.5	5000
						9-20-62	22.3	15.7	5000
						10-24-62	21.5	16.5	5000
						11-27-62	14.4	23.6	5000
						12-18-62	15.1	22.9	5000
						1-22-63	19.0	19.0	5000
						2-19-63	15.5	22.5	5000
						3-20-63	18.1	19.9	5000
						4-24-63	15.2	22.8	5000
						5-21-63	16.4	21.6	5000
						6-19-63	(1)		5000

TABLE C-1 (Continued)

GROUND WATER LEVEL MEASUREMENTS

STATE WELL NUMBER	WELL USE	WELL DEPTH IN FEET	PERIOD OF RECORD BEGIN	PERIOD OF RECORD END	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
BUTTE VALLEY [illegible]									
46N 01E-06N01 M	2	200	52		4242.4	7-26-62	30.9	4211.5	5000
						8-23-62	28.5	4213.9	5000
						9-21-62	24.6	4217.8	5000
						10-23-62	23.6	4218.8	5000
						11-28-62	22.4	4220.0	5000
						12-17-62	(7)		5000
						1-23-63	21.2	4221.2	5000
						2-20-63	20.8	4221.6	5000
						3-21-63	20.2	4222.2	5000
						4-25-63	19.7	4222.7	5000
						5-22-63	24.0	4218.4	5000
						6-20-63	21.8	4220.6	5000
46N 02W-25R02 M	2	110	52		4256.2	7-26-62	(1)		5000
						8-23-62	(1)		5000
						9-21-62	34.2	4222.0	5000
						10-23-62	28.4	4227.8	5000
						11-28-62	27.1	4229.1	5000
						12-17-62	26.9	4229.3	5000
						1-23-63	26.6	4229.6	5000
						2-20-63	24.9	4231.3	5000
						3-21-63	24.5	4231.7	5000
						4-25-63	23.5	4232.7	5000
						5-22-63	23.7	4232.5	5000
						6-20-63	(1)		5000
47N 01W-14B01 M	2	[illegible]	51		4[illegible].7	7-26-62	12.3	4221.4	5000
						8-23-62	12.1	4221.6	5000
						9-21-62	12.1	4221.6	5000
						10-23-62	12.8	4220.9	5000
						11-28-62	10.6	4223.1	5000
						12-17-62	10.7	4223.0	5000
						1-23-63	12.3	4221.4	5000
						2-20-63	11.8	4221.9	5000
						3-21-63	11.9	4221.8	5000
						4-25-63	11.9	4221.8	5000
						5-22-63	11.9	4221.8	5000
						6-20-63	11.9	4221.8	5000
47N 01W-24B01 M	2	[illegible]	51		4233.4	7-26-62	11.5	4222.9	5000
						8-23-62	11.8	4222.6	5000
						9-21-62	12.8	4220.6	5000
						10-23-62	12.0	4221.4	5000
						11-28-62	11.5	4222.9	5000
						12-17-62	(7)		5000
						1-23-63	11.5	4222.9	5000
						2-20-63	9.2	4224.2	5000
						3-21-63	9.7	4223.7	5000
						4-25-63	9.7	4223.7	5000
						5-22-63	9.8	4223.6	5000
						6-20-63	10.0	4223.4	5000

TABLE C-1 (Continued)

GROUND WATER LEVEL MEASUREMENTS

STATE WELL NUMBER	WELL USE	WELL DEPTH IN FEET	PERIOD OF RECORD		GROUND SURFACE ELEVATION IN FEET	DATE	GROUND TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
			BEGIN	END					
BUTTE VALLEY 1-03.00									
48N/01W-26N01 M	U	375	53		4244.2	7-26-62	19.1	4225.1	5000
						8-23-62	20.3	4223.9	5000
						9-21-62	20.8	4223.4	5000
						10-23-62	20.6	4223.6	5000
						11-28-62	25.1	4219.1	5000
						12-17-62	24.5	4219.7	5000
						1-23-63	19.8	4224.4	5000
						2-20-63	17.8	4226.4	5000
						3-21-63	12.2	4232.0	5000
						4-25-63	16.5	4227.7	5000
						5-22-63	(1)		5000
						6-20-63	17.8	4226.4	5000
SHASTA VALLEY 1-04.00									
42N/05W-20J01 M	1	40	53		2882.0	7-26-62	5.8	2876.2	5000
						8-23-62	6.0	2876.0	5000
						9-21-62	6.2	2875.8	5000
						10-23-62	5.8	2876.2	5000
						11-28-62	4.6	2877.4	5000
						12-17-62	4.9	2877.1	5000
						1-23-63	5.3	2876.7	5000
						2-20-63	5.2	2876.8	5000
						3-21-63	5.7	2876.3	5000
						4-25-63	4.9	2877.1	5000
						5-22-63	4.3	2877.7	5000
						6-20-63	4.4	2877.6	5000
42N/06W-10J01 M	1	110	53		2835.0	7-26-62	6.3	2828.7	5000
						8-23-62	10.1	2824.9	5000
						9-21-62	13.3	2821.7	5000
						10-23-62	14.4	2820.6	5000
						11-28-62	6.9	2828.1	5000
						12-17-62	6.7	2828.3	5000
						1-23-63	6.1	2828.9	5000
						2-20-63	4.0	2831.0	5000
						3-21-63	5.2	2829.8	5000
						4-25-63	4.9	2830.1	5000
						5-22-63	3.7	2831.3	5000
						6-20-63	3.0	2832.0	5000
43N/06W-22A01 M	1	100	52		2665.0	7-26-62	(1)		5000
						8-23-62	5.0	2660.0	5000
						9-21-62	4.9	2660.1	5000
						10-23-62	5.8	2659.2	5000
						11-28-62	5.6	2659.4	5000
						12-17-62	5.3	2659.7	5000
						1-23-63	4.3	2660.7	5000
						2-20-63	1.9	2663.1	5000
						3-21-63	2.9	2662.1	5000
						4-25-63	3.0	2662.0	5000
						5-22-63	3.8	2661.2	5000
						6-20-63	4.9	2660.1	5000

TABLE C-1 (Continued)

GROUND WATER LEVEL MEASUREMENTS

STATE WELL NUMBER	WELL USE	WELL DEPTH IN FEET	PERIOD OF RECORD BEGIN	PERIOD OF RECORD END	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SHASTA VALLEY 1-04.00									
44N/05W-34H01 M	S	96	52		2637.0	7-26-62	25.6	2611.4	5000
						8-23-62	(1)		5000
						9-21-62	26.5	2610.5	5000
						10-23-62	28.3	2608.7	5000
						11-28-62	26.9	2610.1	5000
						12-17-62	27.0	2610.0	5000
						1-23-63	28.3	2608.7	5000
						2-20-63	28.9	2608.1	5000
						3-21-63	28.1	2608.9	5000
						4-25-63	28.6	2608.4	5000
						5-22-63	(1)		5000
						6-20-63	26.5	2610.5	5000
45N/05W-29B01 M	1	23	53		2635.0	7-26-62	18.6	2616.4	5000
						8-23-62	18.6	2616.4	5000
						9-21-62	20.0	2615.0	5000
						10-23-62	20.6	2614.4	5000
						11-28-62	18.8	2616.2	5000
						12-17-62	18.2	2616.8	5000
						1-23-63	20.3	2614.7	5000
						2-20-63	20.9	2614.1	5000
						3-21-63	21.4	2613.6	5000
						4-25-63	22.6	2612.4	5000
						5-22-63	21.5	2613.5	5000
						6-20-63	20.8	2614.2	5000
45N/06W-13E01 M	1	425	53		2538.0	7-26-62	21.7	2516.3	5000
						8-23-62	21.3	2516.7	5000
						9-21-62	26.5	2511.5	5000
						10-23-62	20.2	2517.8	5000
						11-28-62	18.1	2519.9	5000
						12-17-62	17.8	2520.2	5000
						1-23-63	18.6	2519.4	5000
						2-20-63	16.6	2521.4	5000
						3-21-63	15.4	2522.6	5000
						4-25-63	17.0	2521.0	5000
						5-22-63	17.0	2521.0	5000
						6-20-63	17.6	2520.4	5000
SCOTT RIVER VALLEY 1-05.00									
42N/09W-08C03 M	1	66	49		2830.0	7-26-62	37.7	2798.3	5000
						8-22-62	46.5	2789.5	5000
						9-21-62	47.8	2788.2	5000
						10-23-62	50.8	2785.2	5000
						11-27-62	(7)		5000
						12-18-62	43.1	2786.9	5000
						1-23-63	(1) 35.5	2800.5	5000
						2-20-63	26.3	2809.7	5000
						3-21-63	25.6	2807.4	5000
						4-25-63	32.5	2803.5	5000
						5-23-63	(1)		5000
						6-20-63	31.5	2804.5	5000

TABLE C-1 (Continued)

GROUND WATER LEVEL MEASUREMENTS

STATE WELL NUMBER	WELL USE	WELL DEPTH IN FEET	PERIOD OF RECORD		GROUND SURFACE ELEVATION IN FEET	DATE	GROUND TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
			BEGIN	END					
SCOTT RIVER VALLEY 1-05.00									
42N/09W-27N01 M	0	19	53		2930.0	7-26-62	6.3	2923.7	5000
						8-22-62	8.1	2921.9	5000
						9-21-62	8.6	2921.4	5000
						10-23-62	7.6	2922.4	5000
						11-28-62	3.2	2926.8	5000
						12-18-62	2.2	2927.8	5000
						1-23-63	5.3	2924.7	5000
						2-20-63	3.4	2926.6	5000
						3-21-63	3.1	2926.9	5000
						4-25-63	1.8	2928.2	5000
						5-22-63	0.8	2929.2	5000
						6-20-63	2.0	2928.0	5000
43N/09W-24F01 M	2	205	53		2735.0	7-26-62	(1)		5000
						8-22-62	(1)		5000
						9-21-62	(1)		5000
						10-23-62	12.3	2722.7	5000
						11-28-62	11.9	2723.1	5000
						12-18-62	10.5	2724.5	5000
						1-23-63	12.0	2723.0	5000
						2-20-63	8.5	2726.5	5000
						3-21-63	8.6	2726.4	5000
						4-25-63	7.4	2727.6	5000
						5-22-63	5.3	2729.7	5000
						6-20-63	4.6	2730.4	5000
44N/09W-28P01 M	0	65	53		2711.0	7-26-62	6.6	2704.4	5000
						8-22-62	10.4	2700.6	5000
						9-21-62	17.3	2693.7	5000
						10-23-62	24.3	2686.7	5000
						11-28-62	20.8	2690.2	5000
						12-18-62	21.0	2690.0	5000
						1-23-63	12.3	2698.7	5000
						2-20-63	8.4	2702.6	5000
						3-21-63	10.0	2701.0	5000
						4-25-63	9.4	2701.6	5000
						5-22-63	(7)		5000
						6-20-63	(7)		5000
MAD RIVER VALLEY 1-08.00									
06N/01E-06H01 H	3	27	51		151.0	7-25-62	11.0	140.0	5000
						8-21-62	12.4	138.6	5000
						9-20-62	13.7	137.3	5000
						10-24-62	11.4	139.6	5000
						11-27-62	0.7	150.3	5000
						12-18-62	0.5	150.5	5000
						1-22-63	4.2	146.8	5000
						2-19-63	1.0	150.0	5000
						3-20-63	2.6	148.4	5000
						4-24-63	1.6	149.4	5000
						5-21-63	3.0	148.0	5000
						6-19-63	5.7	145.3	5000

TABLE C-1 (Continued)

GROUND WATER LEVEL MEASUREMENTS

STATE WELL NUMBER	WELL USE	WELL DEPTH IN FEET	PERIOD OF RECORD		GROUND SURFACE ELEVATION IN FEET	DATE	GROUND TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
			BEGIN	END					
MAD RIVER VALLEY 1-08.01									
06N 01E-29P01 H	4	46	52		25.0	7-25-62	14.3	10.7	5000
						8-21-62	13.3	11.7	5000
						9-20-62	13.0	12.0	5000
						10-24-62	11.3	13.7	5000
						11-27-62	9.5	15.5	5000
						12-18-62	9.1	15.9	5000
						1-22-63	9.2	15.8	5000
						2-19-63	8.2	16.8	5000
						3-20-63	9.0	16.0	5000
						4-24-63	7.9	17.1	5000
						5-21-63	8.9	16.1	5000
						6-19-63	10.2	14.8	5000
EEL RIVER VALLEY 1-11.01									
03N 01W-18D01 H	1	24	51		24.0	7-24-62	2.8	21.2	5000
						8-21-62	2.9	21.1	5000
						9-19-62	2.9	21.1	5000
						10-24-62	3.0	21.0	5000
						11-27-62	3.2	20.8	5000
						12-18-62	3.0	21.0	5000
						1-22-63	3.6	20.4	5000
						2-19-63	3.2	20.8	5000
						3-20-63	3.3	20.7	5000
						4-24-63	1.6	22.4	5000
						5-21-63	1.5	22.5	5000
						6-19-63	1.5	22.5	5000
03N 01W-34J01 H	0	496	51		60.0	7-24-62	34.7	25.3	5000
						8-21-62	34.9	25.1	5000
						9-19-62	35.6	24.4	5000
						10-24-62	35.8	24.2	5000
						11-27-62	32.8	27.2	5000
						12-18-62	32.5	27.5	5000
						1-22-63	33.2	26.8	5000
						2-19-63	31.4	28.6	5000
						3-20-63	32.3	27.7	5000
						4-24-63	30.0	30.0	5000
						5-21-63	31.1	28.9	5000
						6-19-63	32.6	27.4	5000
03N 02W-24R01 H	3	30	51		22.0	7-24-62	9.0	11.0	5000
						8-21-62	9.5	10.5	5000
						9-19-62	9.6	10.4	5000
						10-24-62	9.5	10.5	5000
						11-27-62	6.4	13.6	5000
						12-18-62	6.1	13.9	5000
						1-22-63	6.5	13.5	5000
						2-19-63	5.2	16.8	5000
						3-20-63	5.9	14.1	5000
						4-24-63	4.8	17.2	5000
						5-21-63	5.2	14.8	5000
						6-19-63	7.1	12.9	5000

TABLE C-1 (Continued)

GROUND WATER LEVEL MEASUREMENTS

STATE WELL NUMBER	WELL USE	WELL DEPTH IN FEET	PERIOD OF RECORD		GROUND SURFACE ELEVATION IN FEET	DATE	GROUND TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
			BEGIN	END					
ROUND VALLEY 1-11.[illegible]									
22N/12W-04B01 M	2	[illegible]	51		1351.6	7-24-62	16.[illegible]	134[illegible].1	[illegible]
						8-20-62	12.7	1338.3	[illegible]
						9-18-62	13.8	1337.2	[illegible]
						10-25-62	14.[illegible]	1336.[illegible]	[illegible]
						11-26-62	8.8	1342.2	[illegible]
						12-20-62	6.8	1344.2	[illegible]
						1-21-63	6.8	1344.2	[illegible]
						2-18-63	6.[illegible]	1344.6	[illegible]
						3-19-63	6.6	1345.0	[illegible]
						4-23-63	5.[illegible]	1345.7	[illegible]
						5-20-63	6.[illegible]	1344.6	[illegible]
						6-18-63	7.5	1343.5	[illegible]
22N/13W-12R01 M	3	321	61		1400.0	1-21-63	12.[illegible]	1387.5	[illegible]
						2-18-63	6.1	1393.[illegible]	[illegible]
						3-19-63	6.[illegible]	1393.[illegible]	5000
						4-23-63	5.5	1394.5	5000
						5-20-63	5.4	1394.[illegible]	5000
						6-18-63	7.[illegible]	1392.1	5000
23N/12W-31N01 M	2	200	51		1388.5	7-24-62	FLOW		5000
						8-20-62	4.3	1384.2	5000
						9-18-62	5.2	1383.3	5000
						10-25-62	5.6	1382.9	5000
						11-26-62	-2.[illegible]	1390.5	5000
						12-20-62	-3.1	1391.6	5000
						1-21-63	-3.1	1391.6	5000
						2-18-63	-10.9	1399.4	5000
						3-19-63	-10.4	1398.9	5000
						4-23-63	-22.0	1410.5	5000
						5-20-63	-8.5	1397.0	5000
						6-18-63	-7.3	1395.8	5000
23N/13W-36C03 M	9	289	61		1409.5	9-18-62	26.0	1383.5	5000
						10-25-62	26.9	1382.6	5000
						11-26-62	16.1	1393.4	5000
						12-20-62	14.7	1394.8	5000
						1-21-63	10.7	1398.8	5000
						2-18-63	7.8	1401.7	5000
						3-19-63	8.2	1401.3	5000
						4-23-63	7.0	1402.5	5000
						5-20-63	10.0	1399.5	5000
						6-18-63	10.9	1398.6	5000
23N/13W-36Q01 M	9	300	61		1403.[illegible]	8-20-62	15.6	1387.4	5000
						9-18-62	16.8	1386.[illegible]	5000
						10-25-62	17.7	1385.3	5000
						11-26-62	10.1	1392.9	5000
						12-20-62	8.6	1394.4	5000
						1-21-63	4.5	1398.5	5000
						2-18-63	0.4	1402.6	5000
						3-19-63	2.4	1400.6	5000
						4-23-63	-0.8	1403.8	5000
						5-20-63	1.7	1401.3	5000
						6-18-63	4.0	1399.0	5000

TABLE C-1 (Continued)

GROUND WATER LEVEL MEASUREMENTS

STATE WELL NUMBER	WELL USE	WELL DEPTH IN FEET	PERIOD OF RECORD		GROUND SURFACE ELEVATION IN FEET	DATE	GROUND TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
			BEGIN	END					
LAYTONVILLE VALLEY 1-12.00									
21N/14W-30M01 M	T	13	[illegible]		1688.[illegible]	7-23-62	15.[illegible]	1673.[illegible]	5000
						8-21-62	15.4	1672.6	5000
						9-19-62	16.3	1671.2	5000
						10-24-62	17.1	1670.9	5000
						11-26-62	10.0	1678.0	5000
						12-19-62	7.8	1680.2	5000
						1-21-63	6.7	1681.3	5000
						2-18-63	3.9	1684.1	5000
						3-19-63	5.3	1682.7	5000
						4-23-63	2.7	1685.3	5000
						5-20-63	5.0	1683.0	5000
						6-18-63	9.8	1678.2	5000
21N 15W-12M02 M	1	[illegible]	62		1545.[illegible]	7-23-62	15.[illegible]	1530.0	5000
						8-21-62	17.1	1527.9	5000
						9-19-62	17.4	1527.6	5000
						10-18-62	17.3	1527.7	5000
						11-26-62	5.1	1537.9	5000
						12-19-62	[illegible].8	1540.2	5000
						1-21-63	12.[illegible]	1533.[illegible]	5000
						2-18-63	5.[illegible]	1540.[illegible]	5000
						3-19-63	7.2	1537.8	5000
						4-23-63	2.8	1542.2	5000
						5-20-63	[illegible].9	1538.1	5000
						6-18-63	12.[illegible]	1532.4	5000
21N/15W-24A01 M	[illegible]	22	[illegible]		1653.[illegible]	7-23-62	7.0	1646.0	5000
						8-21-62	7.[illegible]	1645.1	5000
						9-19-62	[illegible].7	1643.3	5000
						10-24-62	11.[illegible]	1641.7	5000
						11-26-62	(7)		5000
						12-[illegible]-62	(7)		5000
						1-21-63	3.3	1649.7	5000
						2-18-63	1.5	1651.5	5000
						3-19-63	1.6	1651.4	5000
						4-23-63	1.[illegible]	1651.1	5000
						5-20-63	2.6	1650.4	5000
						6-18-63	3.[illegible]	1649.1	5000
LITTLE LAKE VALLEY [illegible]-[illegible].00									
18N/13W-08L01 M	1	1[illegible]	53		13[illegible].0	7-23-62	6.9	1333.1	5000
						8-21-62	10.1	1329.9	5000
						9-18-62	10.5	1329.5	5000
						10-25-62	[illegible].[illegible]	1336.4	5000
						11-26-62	[illegible].[illegible]	1339.2	5000
						12-20-62	[illegible].5	1339.5	5000
						1-21-63	1.1	1338.[illegible]	5000
						2-18-63	[illegible].3	1339.7	5000
						3-19-63	[illegible].4	1339.[illegible]	5000
						4-23-63	[illegible].3	1339.7	5000
						5-[illegible]-63	[illegible].1	1337.[illegible]	5000
						6-18-63	3.6	1336.4	5000

TABLE C-1 (Continued)

GROUND WATER LEVEL MEASUREMENTS

STATE WELL NUMBER	WELL USE	WELL DEPTH IN FEET	PERIOD OF RECORD		GROUND SURFACE ELEVATION IN FEET	DATE	GROUND TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
			BEGIN	END					
LITTLE LAKE VALLEY 1-13.00									
18N/13W-17J01 M	1	40	58		1350.0	7-23-62	12.7	1337.3	5000
						8-21-62	13.9	1336.1	5000
						9-18-62	15.0	1335.0	5000
						10-25-62	14.6	1335.4	5000
						11-26-62	10.1	1339.9	5000
						12-20-62	10.6	1339.4	5000
						1-21-63	8.2	1341.8	5000
						2-18-63	5.8	1344.2	5000
						3-19-63	6.1	1343.9	5000
						4-23-63	4.8	1345.2	5000
						5-20-63	5.8	1344.2	5000
						6-18-63	8.1	1341.9	5000
18N/13W-18E01 M	0	493	58		1350.0	7-23-62	23.8	1326.2	5000
						8-21-62	25.6	1324.4	5000
						9-18-62	26.6	1323.4	5000
						10-25-62	24.2	1325.8	5000
						11-26-62	22.3	1327.7	5000
						12-20-62	22.6	1327.4	5000
						1-21-63	21.6	1328.4	5000
						2-18-63	22.0	1328.0	5000
						3-19-63	21.0	1329.0	5000
						4-23-63	20.8	1329.2	5000
						5-20-63	20.6	1329.4	5000
						6-18-63	20.9	1329.1	5000

APPENDIX D

SURFACE WATER QUALITY

TABLE OF CONTENTS

SURFACE WATER QUALITY

The Surface Water Quality Monitoring Program provides basic information on the quality characteristics of the State's surface waters. Data presented in this appendix are measured values of the chemical, physical, and radiological characteristics of surface waters in the North Coastal Area, as shown on the "Area Orientation Map". The surface water quality program is performed in cooperation with other state, local, and federal agencies.

All data presented in this volume are within the North Coastal Water Pollution Control Region (No. 1) excluding the Russian River drainage basin and the area along the coast south of the Mattole River drainage. Plate 5 shows the locations of surface water sampling stations for the 1962-63 water year. Surface water quality samples are collected at or near existing stream gaging stations.

The Surface Water Quality Monitoring Program consists of selecting locations to be sampled, collection of samples by Department personnel or cooperators, laboratory analysis by an assigned agency, examination of the data to note trends or significant changes, and publication of the data and findings.

Except where noted, tabulated values for temperature and dissolved oxygen are those measured in the field at the time of sampling. Comments on local conditions are noted in the field books but are not included in the tabulation.

Tabulated values for dissolved minerals are the analytical quantity reported in parts per million (ppm) and a computed value for equivalents per million (epm). Electrical conductivity is reported as micromhos at 25°C and temperature is in degrees Fahrenheit. Laboratory analyses of surface water

samples were performed by the U. S. Geological Survey (USGS) in accordance with "Methods for Collection and Analysis of Water Samples", Water-Supply Paper 1454. Analysis of surface water samples for trace elements was performed by spectrograph by the USGS and is reported in parts per billion.

Analyses for radioactivity were made by the California Disaster Office Laboratory in Sacramento and results are expressed in terms of activity, measured in micro-micro curies per liter (mmc/l) which is equivalent to pico-curies per liter (pc/l). The most probable error is reported with the measured value.

Bacteriologic determinations were made by the Department of Public Health, Berkeley, and are expressed as the most probable number (MPN) of coliform bacteria per milliliter of sample. In view of the rapidity and frequency of change in the density of coliform organisms, frequent and lengthy sampling is necessary before a truly reliable evaluation can be made.

TABLE D-1

SAMPLING STATION DATA AND INDEX

Station	Station Number	Location[o]	Period[b] of Record	Frequency[c] of Sampling	Sampled[d] by	Pages on page
Antelope Creek near Tennant	1e	43N/01W-25	MAR 59	M	DWR	69
Butte Creek near Macdoel	1d	45N/01W-19	MAR 59	M	DWR	68
Eel River near Dos Rios	5d	21N/13W-31	APR 58	M	DWR	84
Eel River near McCann	5	02S/03E-24*	APR 51	M	DWR	80
Eel River, Middle Fork at Dos Rios	5c	21N/13W-06	APR 58	M	DWR	83
Eel River at Scotia	6	02N/01E-31*	APR 51	M	DWR	85
Eel River, South Fork near Miranda	7	03S/04E-30*	APR 51	M	DWR	87
Klamath River above Hamburg Reservoir Site	1c	46N/10W-14	DEC 58	M	DWR	67
Klamath River below Iron Gate Dam	1f	47N/05W-17	DEC 61	M	DWR	70
Klamath River near Klamath	3	13N/01E-24*	APR 51	M	DWR	74
Klamath River near Seiad Valley	2b	40N/12W-03	DEC 58	M	DWR	73
Klamath River at Somesbar	2	11N/06E-04*	APR 51	M	DWR	71
Mad River near Arcata	6a	06N/01E-19*	NOV 58	M	DWR	86
Mattole River near Petrolia	7a	02S/02W-11*	JAN 59	M	DWR	88
Outlet Creek near Longvale	5b	20N/14W-01	MAY 58	M	DWR	82
Redwood Creek at Orick	3b	10N/01E-04*	NOV 58	M	DWR	76
Salmon River at Somesbar	2a	11N/06E-08*	NOV 58	M	DWR	72
Scott River near Fort Jones	1b	44N/10W-20	DEC 58	M	DWR	66
Shasta River near Yreka	1a	46N/07W-24	DEC 58	M	DWR	65
Smith River near Crescent City	3a	16N/01E-10*	APR 51	M	DWR	75
Trinity River near Burnt Ranch	4b	05N/07E-10*	APR 58	M	DWR	79
Trinity River near Hoopa	4	08N/05E-31*	APR 51	M	DWR	77
Trinity River at Lewiston	4a	33N/06W-17	APR 51	M	DWR	78
Van Duzen River near Bridgeville	5a	01N/03E-17*	APR 58	M	DWR	81

o Except as indicated below location is referenced to Mt. Diablo Base and Meridian
*Humboldt Base and Meridian
**San Bernardino Base and Meridian
b Beginning of record
c M-Monthly, B-Bimonthly, Q-Quarterly, S-Semiannually
d California Department of Water Resources (DWR)

TABLE D-2

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SHASTA RIVER NEAR YREKA (STA. 1a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/	Mineral constituents in parts per million													Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
							Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents							
1962																										USGS
10/4 0845	154	55	7.6	91	525	8.4 b 8.4	4.04		44 1.91		11 0.37	280 4.59		24 0.68			0.5		Tot. alk. 230		4	170		1	80 1.9	
11/15 0830	145	43	9.4	96	523	8.4 b 8.5	3.98		44 1.91		8 0.40	240 4.71		24 0.68			0.3		Tot. alk. 210		5	160		2	240 4.0	
12/16 0815	300	43	11.4	96	541	8.4 b 8.5	4.21		46 2.00		12 0.53	280 4.72		22 0.62			0.6		Tot. alk. 230		6	170		1	80 1.9	
1963																										
1/2 1020	243	44	11.6	98	497	8.4 b 8.0	4.04		39 1.67		12 0.53	270 4.52		21 0.59			0.3		Tot. alk. 220		6	170		1	2.0	
2/14 1330	368	44	11.8	96	483	8.4 b 8.2	4.18		31 1.35		7 0.2	280 4.72		18 0.51			0.2		Tot. alk. 230		6	170		1	2.0	
3/7 0815	265	46	11.5	96	478	8.4 b 8.6	3.90		33 1.43		11 0.37	260 4.34		17 0.51			0.3		Tot. alk. 210		6	160		1	2.0	
4/9 0845	200	48	11.4	103	481	8.4 b 8.4	3.98		34 1.48		11 0.37	277 4.54		15 0.42			0.2		Tot. alk. 230		7	170		1	2.0	
5/2 0715	165	55	10.0	101	537	7.8 b 8.1	31 1.55	36 2.93	37 1.61	2.6 0.07	1 0.03	310 5.08	34 0.70	26 0.71	1.5 0.02	1.3 0.01	0.3	41	Tot. alk. 250 PO_4 0.5	340 g 307	41	220		12	2.0	
6/3 1544	148	69	7.4	106	517	8.4 b 8.4	4.30		34 1.48		10 0.27	277 4.54		17 0.64			0.5		Tot. alk. 230		6	170		2	2.0	
7/9 1345	43	73	7.4	91	564	8.1 b 8.1	4.70		46 2.00		15 0.40	320 5.24		20 0.56			0.5		Tot. alk. 260		7	200		1	2.0	
8/6 1355	31	80	6.0	116	621	8.1 b 8.1	5.20		50 2.18		24 0.80	335 5.51		24 0.67			0.4		Tot. alk. 274		9	240		1	2.0	
9/11 1237	100	65	7.3	105	591	8.2 b 8.1	34 1.7	25 2.10	40 1.74	4.0 0.1	17 0.57	305 5.00	31 0.67	21 0.59	1.4 0.02	1.2 0.02	0.4	47	Tot. alk. 250 PO_4 0.3 Al 0.4 ABS 0.2	340 g 319	44	240		1	2.0	

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SCOTT RIVER NEAR FORT JONES (STA. 11)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/ b/	Mineral constituents in ppm: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C. ppm	Turbidity in ppm	Coliform h/ MPN/ml	Analyzed by i/
11/6																										11/63
1			11.7	114															Tot. alk., 122							
1																									Median 1 c.	
11/6 1245	7.7	4	10.4	100	144																					
																									Maximum 69 c.	
12	1.30	44	11.0	98	174																					
																									Minimum 2 c.	
11/6																										
1	4.30	41	11.4	99	139																					
1430																										
1	1.20	43	10.9	97	154																					
1																										
1	1.05	44	11.4	96	187																					
1430																										
1	1.50	44	10.7	101	137																					
1																										
1	1.50	44	10.3	96	150														Fe, 1.0							
1200																										
11/5 1300	46	47	11.2	102	141														Tot. alk., 96							
11/6 1330	32	37	12.2	107	202																					
11/6 1510	1.90	42	10.1	133	288																					
11/20 1230																			Tot. alk., 110 Fe, 0.08 A., 0.1 ABS, 0.01							

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

32505-6-61 6-61 200 SPO

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE (STA. 1c)

Date and time sampled P.S.T.	Discharge in cfs Inst. Rated	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: NC ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										USGS
10/4 1120		61	9.9	100	226	8.1 7.9	— 1.50		18 0.78		0 0.00	120 1.97		7.5 0.21	2.7 0.04		0.1		PO_4 0.35		94	75	0	4		
11/15 1110	50	10.6	94	247	7.6 8.0	— 1.59			21 0.91		0 0.00	124 2.03		6.9 0.19	2.4 0.04		0.1		PO_4 0.[illegible]		90	80	0	15		
12/12 1147	43	11.7	94	264	7.7 8.1	— 1.72			22 0.96		6 0.20	122 2.00		7.0 0.20	1.4 0.02		0.2		PO_4 0.25		90	80	0	2[illegible]		
1963																										
1/15 1[illegible]	41	1.[illegible]	94	254	7.9 7.9	— 1.68			23 1.00		0 0.00	122 2.00		6.8 0.19	2.5 0.04		0.1		PO_4 0.20		87	80	0	15		
2/14 1130	43	11.7	94	268	7.9 7.8	— 1.70			19 0.83		0 0.00	133 2.18		7.1 0.20	1.2 0.02		0.2		PO_4 0.1[illegible]		90	90	0	15		
3/[illegible] 1150	47	11.[illegible]	98	273	7.9 8.1	— 1.80			21 0.91		0 0.00	127 2.08		6.2 0.17	1.5 0.02		0.1		PO_4 0.2[illegible]		93	80	0	1		
4/9 117	48	11.0	99	265	7.6 7.9	— 1.68			17 0.74		0 0.00	116 1.90		5.0 0.14	2.5 0.04		0.1		PO_4 0.1[illegible]		91	84	0	15		
5/2 1[illegible]	44	10.9	100	2[illegible]	7.8 7.9	19 0.94	6.4 0.53	14 0.61	2.1 0.05	0 0.00	101 1.66	17 0.35	4.5 0.13	1.5 0.02	0.2 0.01	0.0	14	PO_4 0.20		139[f] 139[g]	29	74	0	1[illegible]		
[illegible]/4 0[illegible]	41	9.[illegible]	[illegible]	238	7.9 8.2	— 1.72			17 0.74		0 0.00	120 1.97		5.6 0.16	2.5 0.04		0.2		PO_4 0.[illegible]		90	80	0	[illegible]		
7/13 [illegible]	38	8.5	88	226	7.4 8.2	— 1.72			16 0.70		0 0.00	120 1.97		7.0 0.20	0.8 0.01		0.2		PO_4 0.20		94	80	0	[illegible]		
8/7 0810	72	8.1	87	144	8.3 7.5	— 1.30			14 0.61		0 0.00	97 1.59		4.2 0.14	2.5 0.04		0.0		PO_4 0.[illegible]		91	69	0	1		
9/11 [illegible]	62	8.7	100	205	7.9 8.2	15 0.[illegible]	4.4 0.[illegible]	15 0.65	2.6 0.[illegible]	0 0.00	110 1.80	9.0 0.[illegible]	6.6 0.19	1.0 0.02	0.1 0.01	0.1	23	PO_4 0.35 As 0.01 ABS 0.[illegible]		135[f] 12[g]	30	64	0	3		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR), as indicated.

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TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

BUTTE CREEK NEAR MACDOEL (STA. 1d)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
[illegible]																										USGS
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		4.6 / [illegible]		[illegible] / 0.00	44 / 0.72		1.0 / [illegible]			0.0				27	[illegible]	0	[illegible]		
[illegible]	[illegible]	41	11.4	[illegible]	61	7.1 / 7.[illegible]	[illegible] / [illegible]		[illegible] / [illegible]		[illegible] / [illegible]	36 / [illegible]		0.4 / [illegible]			0.0				26	[illegible]	[illegible]	[illegible]		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		4.0 / 0.17		[illegible] / 0.00	40 / 0.66		0.8 / [illegible]			0.0				24	[illegible]	[illegible]	3		
[illegible]																										
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] / [illegible]		[illegible] / 0.16		0 / 0.00	38 / [illegible]		1.5 / 0.04			0.0				25	[illegible]	0	2		
[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	7.1 / [illegible]	[illegible] / [illegible]		[illegible] / 0.16		0 / 0.00	34 / 0.56		1.7 / 0.05			0.0				26	[illegible]	0	7		
[illegible]	40	40	11.[illegible]	[illegible]	[illegible]	7.3 / 7.7	[illegible] / [illegible]		[illegible] / 0.14		[illegible] / 0.00	38 / [illegible]		0.8 / 0.02			0.0				23	[illegible]	0	[illegible]		
[illegible]	[illegible]	[illegible]	10.4	[illegible]	[illegible]	7.4 / [illegible]	[illegible] / [illegible]		3.6 / 0.16		0 / 0.00	40 / 0.66		0.5 / 0.01			0.0				24	[illegible]	0	5		
[illegible]	30	[illegible]	[illegible]	100	[illegible]	7.4 / 7.7	7.[illegible] / [illegible]	1.[illegible] / [illegible]	[illegible] / 0.17	1.[illegible] / 0.04	[illegible] / 0.00	42 / [illegible]	0.0 / 0.00	1.4 / 0.04	1.[illegible] / 0.03	0.0 / 0.00	0.0	31	PO_4 0.0[illegible]	70[f] / 85[e]	[illegible]	27	0	[illegible]		
[illegible]	[illegible]	56	[illegible]	100	65	7.[illegible] / [illegible]	[illegible] / [illegible]		[illegible] / 0.14		[illegible] / 0.00	38 / 0.6[illegible]		[illegible] / 0.01			0.1				21	[illegible]	[illegible]	10		
[illegible]	30	[illegible]	[illegible]	105	73	7.[illegible] / 7.[illegible]	[illegible] / [illegible]		3.[illegible] / 0.17		[illegible] / 0.00	43 / 0.70		0.8 / 0.02			0.0				[illegible]	31	[illegible]	5		
[illegible]	[illegible]	[illegible]	8.[illegible]	100	80	[illegible] / [illegible]	[illegible] / [illegible]		4.[illegible] / [illegible]		[illegible] / 0.00	46 / 0.75		0.[illegible] / 0.01			0.0				24	30	0	1		
[illegible]/10 13[illegible]	1	[illegible]	8.7	107	90	7.[illegible] / 7.7	11 / 0.55	1.0 / 0.1[illegible]	4.8 / 0.21	2.3 / 0.0[illegible]	[illegible] / 0.00	54 / 0.89	1.0 / 0.02	1.0 / 0.03	0.3 / 0.00	0.0 / 0.00	0.0	21	PO_4 0.05 As 0.0[illegible] ABS 0.00	70[f] / 72[e]	21	36	0	3		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

ANTELOPE CREEK NEAR TENNANT (STA. 1[illegible])

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
10/3 1445	.07	64	4.3	81	147	7.4 / 7.6	14 / 0.68		4.2 / 0.18		0 / 0.00	38 / 0.62		1.0 / 0.03			1.0				37	44	0	2		
11/14 1445	38	60	11.1	85	93	7.2 / 7.6	7.0 / 0.35		2.6 / 0.11		0 / 0.00	31 / 0.51		2.2 / 0.06			0.10				24	33	0	1		
12/11 1140	35	36	11.8	90	91	7.3 / 7.4	8.6 / 0.43		2.4 / 0.13		0 / 0.00	36 / 0.59		0.5 / 0.01			0.10				25	35	0	2		
1963																										
1/22 1135	55	37	11.7	90	96	7.5 / 7.6	8.0 / 0.40		2.4 / 0.10		0 / 0.00	32 / 0.52		0.5 / 0.01			0.10				24	30	0	1		
2/13 1230	86	38	11.7	97	91	7.4 / 7.6	6.2 / 0.31		2.2 / 0.10		0 / 0.00	23 / 0.38		1.0 / 0.03			0.1				24	30	0	2		
3/5 1415	33	38	11.8	98	91	7.3 / 7.7	7.6 / 0.38		2.5 / 0.11		0 / 0.00	31 / 0.51		0.5 / 0.01			0.1				26	34	0	2		
4/8 1345	52	41	10.4	100	88	7.3 / 7.6	7.4 / 0.37		2.4 / 0.11		0 / 0.00	20 / 0.48		0.5 / 0.01			0.0				25	34	0	2		
5/1 1435	68	44	10.1	99	90	7.2 / 7.6	5.2 / 0.26	1.2 / 0.10	2.6 / 0.11	0.5 / 0.01	0 / 0.00	27 / 0.44	0.0 / 0.00	1.1 / 0.03	1.0 / 0.02	0.0 / 0.00	0.0	.24	PO_4 0.00	149[f] 59[g]	35	18	0	2		
6/4 1120	80	43	10.4	101	93	7.4 / 7.6	6.4 / 0.32		2.4 / 0.10		0 / 0.00	21 / 0.41		1.0 / 0.03			0.1				24	31	0	2		
7/9 1430	28	54	9.0	100	93	6.5 / 7.4	9.2 / 0.45		3.0 / 0.13		0 / 0.00	36 / 0.59		0.5 / 0.01			0.1				31	36	0	2		
8/7 1215	12	55	9.0	102	93	7.3 / 7.8	9.4 / 0.47		3.0 / 0.14		0 / 0.00	34 / 0.56		1.0 / 0.03			0.10				32	40	0	1		
9/10 1230	4	55	8.1	102	91	7.4 / 7.4	7.4 / 0.32	1.5 / 0.12	3.0 / 0.13	0.5 / 0.02	0 / 0.00	37 / 0.61	1.0 / 0.02	1.0 / 0.03	0.1 / 0.00	0.0 / 0.00	0.0	.20	PO_4 0.00 As 0.00 AlK^4 0.00	142[f] 62[g]	41	24	0	2		

o Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL), or California Department of Water Resources (DWR); as indicated.

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER BELOW IRON GATE DAM (STA. 11)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform MPN/ml h	Analyzed by i
#2																										USGS
1/4 0845	1,410	48	11.7	96	169	7.6 / 7.7	34 / 1.69		14 / 0.60		0 / 0.00	84 / 1.36		5.0 / 0.14	2.4 / 0.04		0.1		PO_4 0.05		96	62	0	4	Median 18.	
11/15 0845	2,940	44	9.1	84	267	7.3 / 7.9	31 / 1.54		21 / 0.91		0 / 0.00	96 / 1.57		7.4 / 0.15	4.1 / 0.07		0.1		PO_4 0.20		90	85	0	5	Maximum 2,400.	
12/12 1000	3,270	43	11.4	100	298	7.4 / 7.9	34 / 1.69		23 / 1.00		0 / 0.00	96 / 1.57		6.2 / 0.17	1.4 / 0.02		0.1		PO_4 0.20		93	87	0	20	Minimum .23	
1980																										
1/3 0930	4,000	40	11.7	100	252	7.4 / 7.9	34 / 1.69		23 / 1.00		0 / 0.00	103 / 1.69		6.2 / 0.17	2.5 / 0.04		0.1		PO_4 0.20		92	88	0	8		
2/14 0820	3,600	41	11.4	97	253	7.3 / 7.5	31 / 1.54		20 / 0.87		0 / 0.00	90 / 1.48		5.2 / 0.15	1.1 / 0.02		0.2		PO_4 0.00		90	84	0	14		
3/6 0845	3,380	44	10.4	91	240	7.4 / 7.8	32 / 1.60		22 / 0.96		0 / 0.00	105 / 1.72		5.2 / 0.15	2.2 / 0.04		0.1		PO_4 0.30		88	77	0	15		
4/9 0930	3,300	48	10.3	95	236	7.6 / 7.9	32 / 1.60		19 / 0.83		0 / 0.00	95 / 1.56		6.0 / 0.17	1.2 / 0.03		0.1		PO_4 0.25		88	83	5	5		
5/2 0830	3,140	50	10.2	99	168	7.4 / 7.8	11 / 0.55	6.2 / 0.51	14 / 0.61	2.2 / 0.06	0 / 0.00	74 / 1.21	10 / 0.20	4.2 / 0.08	0.7 / 0.01	0.1 / 0.01	0.1	7.7	PO_4 0.15 As 0.01 ABS 0.00	99 f 104 g	55	54	0	5		
6/3 1415	970	68	10.5	114	201	7.4 / 7.9	18 / 0.78		11 / 0.48		0 / 0.00	68 / 1.39		4.6 / 0.14	0.4 / 0.01		0.1		PO_4 0.15		59	60	0	5		
7/10 1225	740	72	10.8	132	177	8.0 / 8.0	14 / 1.16		14 / 0.61		0 / 0.00	82 / 1.34		3.0 / 0.10	1.0 / 0.02		0.1		PO_4 0.00		54	52	0	10		
8/6 1245	1,020	72	9.3	114	171	8.4 / 8.0	13 / 1.16		13 / 0.57		0 / 0.00	83 / 1.36		2.4 / 0.09	2.4 / 0.04		0.0		PO_4 0.25		33	48	0	1		
9/11 0830	1,400	68	7.1	83	170	7.4 / 7.9	13 / 0.65	5.7 / 0.47	13 / 0.57	2.5 / 0.06	0 / 0.00	84 / 1.38	10 / 0.21	2.2 / 0.07	2.1 / 0.03	0.3 / 0.02	0.1	08	PO_4 0.35 As 0.00 ABS 0.00	118 f 124 g	53	56	0	5		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)
ANALYSES OF SURFACE WATER

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER AT SOMESBAR (STA. 4)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/ b/	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: NC ppm	Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
1955																										USGS
1/[illegible] 1325	4,140	56	10.6	103	178	7.8 / 7.8	1.34		11 / 0.48		0 / 0.00	93 / 1.52		5.2 / 0.15			0.1				26	67	0	8	Median 6.2	
11/5 1345	4,380	56	7.7	73	198	7.0 / 6.1	1.40		14 / 0.61		0 / 0.00	102 / 1.67		5.9 / 0.17			0.0				30	70	0	5	Maximum 230.	
12/3 1250	54,100	48	12.5	108	95	7.3 / 7.5	0.88		3.7 / 0.16		0 / 0.00	50 / 0.82		1.9 / 0.03			0.0				15	44	3	180	Minimum .23	
1956																										
1/7 1130	6,430	41	13.4	105	199	7.2 / 7.9	1.48		13 / 0.57		0 / 0.00	100 / 1.64		5.0 / 0.14			0.1				28	74	0	5		
2/5 1245	45,700	47	12.9	110	106	7.3 / 7.7	0.92		4.0 / 0.17		0 / 0.00	60 / 0.98		2.9 / 0.08			0.0				16	46	0	30		
3/12 1200	6,480	44	12.5	108	194	7.8 / 8.2	1.56		8.1 / 0.39		0 / 0.00	102 / 1.67		4.8 / 0.14			0.0				20	78	0	6		
4/1 1220	15,600	47	12.[illegible]	108	136	7.4 / 8.0	1.16		5.0 / 0.22		0 / 0.00	71 / 1.16		1.5 / 0.04			0.0				16	58	0	16		
5/6 1145	20,500	50	12.1	109	98	7.0 / 7.6	0.49	0.40	3.7 / 0.16	0.7 / 0.02	0 / 0.00	55 / 0.90	0.0 / 0.00	1.0 / 0.03	0.8 / 0.01	0.0 / 0.00	0.1	13	PO_4 0.10 As 0.00 ABS 0.00	65[f] 70[g]	16	42	-	15		
6/10 1150	6,840	63	9.4	104	140	7.6 / 8.3	1.28		5.5 / 0.24		1 / 0.03	74 / 1.28		3.2 / 0.09			0.0		Tot. alk. 86		10	61	0	1		
7/10 1110	2,550	70	9.1	103	173	8.4 / 8.3	1.52		7.4 / 0.34		4 / 0.13	108 / 1.84		5.5 / 0.16			0.0		Tot. alk. 100		18	76		2		
8/10 115	2,190	73	9.0	105	188	7.9 / 8.2	1.50		10 / 0.44		0 / 0.00	100 / 1.64		5.6 / 0.16			0.0				23	75	0	1		
9/5 1250	6,24	71	9.1	104	202	8.0 / 8.5	1.60	0.64 / 0.77	12 / 0.52	1.9 / 0.05	4 / 0.13	103 / 1.69	4.0 / 0.12	6.3 / 0.18	0.2 / 0.01	0.2 / 0.01	0.1	12	Tot. alk. 111 PO_4 0.10 As 0.00 ABS 0.00	126[f] 124[g]	24	78	0	5		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SALMON RIVER AT SOMESBAR (STA. 2A)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1957																										USGS
10/ 1400	4251	56	11.2	107	100	7.4 7.7	7.6 0.38		2.4 0.10		0 0.00	37 0.61		2.0 0.06			0.0				10	40	0	3	Median 2.3	
11/ 1400	4344	54	12.0	97	111	7.2 7.8	8.0 0.40		2.5 0.11		0 0.00	44 1.28		2.0 0.06			0.0				10	40	0	1	Maximum 230.	
12/ 1330	14,400	44	12.4	108	81	7.2 7.8	4.4 0.22		2.0 0.09		0 0.00	30 0.49		1.0 0.03			0.1				12	34	0	70	Minimum .13	
1958																										
1/ 1330	1,110	41	13.5	103	108	7.4 7.8	7.2 0.36		2.1 0.09		0 0.00	46 1.28		1.0 0.03			0.0				8	51	0	1		
2/ 1330	1,030	47	12.4	105	94	7.2 7.5	6.8 0.34		1.5 0.07		0 0.00	40 0.66		1.8 0.05			0.0				9	34	1	45		
3/ 1330	1,030	45	12.6	104	111	7.4 7.8	7.2 0.36		2.1 0.09		0 0.00	45 1.31		1.0 0.03			0.0				8	43	0	2		
4/ 1330	1,760	46	12.4	104	104	7.4 7.8	7.2 0.36		2.1 0.09		0 0.00	45 1.02		1.0 0.03			0.0				8	44	0	3		
5/ 1400	1,430	49	11.8	105	104	7.4 7.8	6.7 0.46	1.2 0.10	1.6 0.07	1.4 0.04	0 0.00	42 0.69	0.4 0.01	1.1 0.03	1.4 0.02	0.0 0.00	0.0	11	PO_4 0.00	50[f] 50[e]	9	52	0	10		
6/ 1400	1,860	50	10.2	104	80	7.4 8.0	7.8 0.75		1.8 0.08		0 0.00	46 0.75		1.2 0.03			0.0				10	50	0	1		
7/ 1400	1,605	52	9.7	101	104	8.1 8.2	7.7 1.01		2.7 0.12		0 0.00	65 1.07		2.8 0.08			0.0				11	50	0	1		
8/ 1400	1,314	52	9.4	109	130	7.4 8.1	9.2 1.26		3.2 0.14		0 0.00	74 1.21		3.8 0.08			0.0				10	60	0	1		
9/ 5 1530	1,460	54	9.0	108	131	8.1 8.1	10 0.49	4.4 0.31	3.2 0.14	1.1 0.03	0 0.00	78 1.28	4.0 0.08	4.2 0.11	0.1 0.00	0.0 0.00	0.0	17	PO_4 0.00 As 0.00 ABS 0.00	89[f] 85[e]	10	63	0	1		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated

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TABLE D-2 (Continued)
ANALYSES OF SURFACE WATER

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER NEAR SEIAD VALLEY (STA. 76)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
10/4 1230	1,970	62	10.6	108	228	8.2 / 8.0	1.62[c]		17 / 0.74		0 / 0.00	120 / 1.97		7.0 / 0.20	2.1 / 0.03		0.1		PO_4 0.05		31	61	0	4		
11/15 1210	4,550	49	10.7	93	219	7.4 / 8.1	1.50[c]		16 / 0.70		0 / 0.00	114 / 1.87		6.4 / 0.18	2.1 / 0.03		0.10		PO_4 0.05		32	75	0	10		
12/12 1220	5,640	43	12.0	97	237	7.7 / 7.7	1.70[c]		17 / 0.74		0 / 0.00	115 / 1.88		6.5 / 0.18	1.4 / 0.02		0.07		PO_4 0.03		33	80	0	1[e]		
1963																										
1/3 1200	5,120	43	12.2	98	230	7.6 / 8.0	1.68[c]		18 / 0.78		0 / 0.00	118 / 1.93		6.5 / 0.18	1.9 / 0.04		0.09		PO_4 0.13		32	84	0	1		
2/14 1150	5,300	45	11.8	98	214	7.7 / 7.9	1.75[c]		11 / 0.48		0 / 0.00	116 / 1.90		5.6 / 0.16	0.24 / 0.01		0.03		PO_4 0.12		26	88	0	2[e]		
3/6 1305	4,870	47	11.9	101	253	7.9 / 7.9	1.88[c]		17 / 0.74		0 / 0.00	123 / 2.02		5.8 / 0.16	1.7 / 0.03		0.1		PO_4 0.20		28	93	0	10		
4/9 1210	7,120	48	11.2	101	210	7.8 / 7.9	1.68[c]		9.5 / 0.41		0 / 0.00	103 / 1.69		4.0 / 0.11	1.2 / 0.02		0.1		PO_4 0.10		30	84	0	10		
5/2 1130	6,300	49	10.9	100	180	7.7 / 8.1	1.5 / 0.80	8.1 / 0.67	10 / 0.44	1.8 / 0.05	0 / 0.00	90 / 1.57	12 / 0.25	4.0 / 0.09	0.24 / 0.01	0.02 / 0.01	0.1	14	PO_4 0.20 As 0.00 ABS 0.00	115[f] 112[g]	25	74	0	10		
6/4 0800	2,870	58	9.7	99	189	7.4 / 8.2	1.48[c]		9.8 / 0.43		0 / 0.00	101 / 1.66		3.2 / 0.11	0.4 / 0.01		0.1		PO_4 0.13		25	74	0	4		
7/10 0900	1,400	67	9.3	104	230	7.6 / 8.2	2.04[c]		13 / 0.57		0 / 0.00	130 / 2.13		6.4 / 0.18	0.20 / 0.01		0.07		PO_4 0.20		28	104	0	5		
8/7 0905	1,350	72	8.7	104	204	8.0 / 8.0	1.94[c]		13 / 0.57		0 / 0.00	104 / 1.77		5.2 / 0.15	0.2 / 0.4		0.0		PO_4 0.40		27	77	0	1		
9/11 1045	1,590	68	9.4	108	208	8.3 / 7.9	1.4 / 0.70	1.0 / 0.82	14 / 0.61	2.3 / 0.06	0 / 0.00	112 / 1.84	4.0 / 0.14	4.0 / 0.11	0.24 / 0.01	0.3 / 0.02	0.1	11	PO_4 0.05 As 0.00 ABS 0.00	114[f] 134[g]	1	70	0	14		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

KLAMATH RIVER NEAR KLAMATH (STA. 5)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in ppm: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfates (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1963																										USGS
1/21 1140	27,400	55	10.6	100	99	7.4 / 7.7	19 / 0.95		3.2 / 0.14		0 / 0.00	25 / 0.85		2.0 / 0.06			0.01				14	44	1	4	Median 6.2	
2/18 1130	9,720	53	10.9	100	102	7.5 / 8.1	29 / 1.46		11 / 0.48		0 / 0.00	102 / 1.67		5.1 / 0.14			0.0				24	74	0	5	Maximum 7,000.	
3/25 1300	50,400	59	11.7	104	123	7.5 / 7.7	27 / 1.38		5.4 / 0.23		0 / 0.00	68 / 1.11		2.8 / 0.08			0.1				18	54	0	70	Minimum .06	
1963																										
1/9 1115	10,800	43	12.5	100	180	7.5 / 8.1	29 / 1.48		9.6 / 0.42		0 / 0.00	96 / 1.57		3.5 / 0.10			0.0				22	74	0	4		
2/7 1000	48,200	50	11.9	105	122	7.3 / 7.7	22 / 1.10		3.9 / 0.17		0 / 0.00	67 / 1.10		2.1 / 0.09			0.0				13	55	0	40		
3/14 0955	11,400	48	11.9	102	180	7.7 / 8.1	29 / 1.48		6.8 / 0.30		0 / 0.00	84 / 1.34		2.0 / 0.08			0.0				17	74	0	9		
4/3 1100	33,600	48	11.8	101	132	7.4 / 8.1	24 / 1.20		3.8 / 0.17		0 / 0.00	73 / 1.20		1.3 / 0.04			0.0				12	60	0	110		
5/8 0950	46,600	52	11.1	100	100	7.6 / 8.1	10 / 0.50	5.1 / 0.42	4.0 / 0.15	0.3 / 0.01	0 / 0.00	56 / 0.92	3.0 / 0.06	1.5 / 0.04	0.3 / 0.00	0.1 / 0.01	0.1	14	PO_4 0.15 As 0.04 ABS 0.00	65[f] 76[f]	12	46	0	50		
6/12 1200	12,200	66	9.3	99	133	7.5 / 8.2	24 / 1.22		4.4 / 0.19		0 / 0.00	77 / 1.26		4.0 / 0.11			0.01				13	61	0	2		
7/17 1230	4,360	69	9.1	100	166	8.1 / 8.2	31 / 1.52		5.4 / 0.26		0 / 0.00	97 / 1.59		5.4 / 0.15			0.0				15	76	0	1		
8/14 1235	3,480	72	9.3	104	187	8.0 / 8.1	33 / 1.60		7.7 / 0.33		1 / 0.00	100 / 1.64		5.4 / 0.16			0.0				17	80	0	1		
9/5 0925	3,400	70	8.3	92	190	7.7 / 8.2	20 / 1.00	8.8 / 0.72	9.0 / 0.39	1.7 / 0.04	7 / 0.23	92 / 1.51	4.0 / 0.19	6.0 / 0.17	1.4 / 0.01	0.2 / 0.02	0.1	15	Tot. alk. 100 PO_4 0.05 As 0.04 ABS 0.00	122[f] 122[f]	18	80	0	4		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)
ANALYSES OF SURFACE WATER

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

SMITH RIVER NEAR CRESCENT CITY (STA. 58)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/ b/	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C. ppm	Turbidity in ppm	Coliform h/ MPN/ml	Analyzed by i/
1962																										USGS
10/11 1430	25,800	54	12.3	114	77	7.3 / 7.4	— / 0.75 c/		1.7 / 0.07		0 / 0.00	44 / 0.72		1.5 / 0.04			0.0				9	38	2	35	Median .62	
11/ [illegible]	860	50	11.3	100	114	7.4 / 8.0	— / 1.08 c/		2.3 / 0.10		0 / 0.00	68 / 1.11		3.1 / 0.09			0.0				8	54	0	1	Maximum 230.	
12/5 1445	8,900	50	12.3	109	80	7.2 / 7.6	— / 0.74 c/		1.9 / 0.08		0 / 0.00	44 / 0.72		2.2 / 0.06			0.1				10	37	1	5	Minimum .20	
1962																										
1/9 1300	1,400	43	12.8	103	105	7.4 / 7.9	— / 1.02 c/		2.1 / 0.10		0 / 0.00	62 / 1.02		2.8 / 0.08			0.0				9	51	0	1		
2/7 1230	4,500	50	12.6	111	78	7.0 / 7.5	— / 0.73 c/		1.7 / 0.07		0 / 0.00	43 / 0.70		3.3 / 0.09			0.1				9	37	2	4		
3/14 1145	1,780	46	12.6	108	100	7.2 / 8.0	— / 0.95 c/		1.7 / 0.07		0 / 0.00	57 / 0.93		2.5 / 0.07			0.0				7	48	1	3		
4/ 1300	1,230	44	12.5	108	82	7.4 / 7.9	— / 0.70 c/		1.2 / 0.06		0 / 0.00	36 / 0.59		1.8 / 0.05			0.0				10	38	8	8		
5/ 1145	14,800	48	12.2	108	71	7.4 / 8.0	4.2 / 0.21	5.7 / 0.47	1.8 / 0.08	0.7 / 0.02	0 / 0.00	41 / 0.67	1.0 / 0.02	3.1 / 0.09	0.4 / 0.01	0.0 / 0.00	0.0	20	PO_4 0.00	57 f/ 68 g/	11	34	0	15		
6/12 1005	1,900	62	11.4	101	107	7.2 / 8.1	— / 1.04 c/		2.3 / 0.10		0 / 0.00	64 / 1.05		3.2 / 0.11			0.0				9	52	0	1		
7/17 1020	485	68	11.0	102	121	7.2 / 8.1	— / 1.22 c/		2.4 / 0.10		0 / 0.00	73 / 1.20		4.5 / 0.13			0.2				8	61	1	4		
8/14 1050	370	67	11.4	101	134	7.1 / 8.1	— / 1.32 c/		2.9 / 0.13		0 / 0.00	78 / 1.28		4.1 / 0.12			0.0				9	66	2	1		
9/5 1130	350	68	11.3	101	138	7.2 / 8.2	— / 1.40 c/	12 / 0.98	2.6 / 0.11	0.0 / 0.00	0 / 0.00	80 / 1.31	2.0 / 0.06	4.8 / 0.14	0.3 / 0.00	0.0 / 0.00	0.1	14	PO_4 0.00 As 0.01 ABS 0.00	84 f/ 73 g/	7	68	2	1		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS), United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc (TTL), or California Department of Water Resources (DWR); as indicated.

3250-DH 6-61 200 JPO

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

REDWOOD CREEK AT ORICK (STA. 3b)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfates (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1957																										USGS
10/11 1400	0.75[e]	56	10.1	96	82	6.2 / 7.2	0.67		2.3 / 0.14		0 / 0.00	35 / 0.54		4.0 / 0.11			0.0				17	34	7	100	Median 23.	
11/8 0900	1.0	52	10.5	95	110	7.4 / 7.9	0.97		4.6 / 0.20		0 / 0.00	56 / 0.92		5.4 / 0.15			0.0				17	48	2	1	Maximum 2,400.	
12/5 1300	3.4	51	11.2	100	87	7.1 / 7.0	0.82		4.6 / 0.20		0 / 0.00	38 / 0.48		3.5 / 0.10			0.0				28	26	3	50	Minimum 2.3	
1958																										
1/7 0945	0.4	46	11.6	96	100	7.2 / 7.9	0.90		2.7 / 0.10		0 / 0.00	44 / 0.75		4.0 / 0.13			0.0				16	43	5	4		
2/5 0900	2,280	51	11.0	98	74	7.1 / 7.0	0.58		2.1 / 0.14		0 / 0.00	32 / 0.52		3.0 / 0.14			0.1				13	29	3	30		
3/6 0900	1.0	47	11.4	100	92	7.2 / 7.7	0.71		2.6 / 0.15		0 / 0.00	40 / 0.66		4.0 / 0.11			0.0				17	36	5	4		
4/7 1000	3,470	49	11.4	102	100	7.3 / 7.9	0.55		2.5 / 0.12		0 / 0.00	30 / 0.49		3.5 / 0.07			0.0				15	29	3	180		
5/2 0845	1.1	52	10.7	97	94	7.2 / 7.8	0.64 / 0.44	1.5 / 0.12	3.0 / 0.13	0.5 / 0.01	0 / 0.00	31 / 0.51	2.0 / 0.10	4.0 / 0.11	0.7 / 0.01	0.0 / 0.00	0.0	11.7	PO_4 0.10	45[f] 52[f]	19	28	3	35		
6/4 1430	280	67	9.8	109	100	7.2 / 8.1	0.68		2.4 / 0.15		0 / 0.00	53 / 0.84		5.1 / 0.17			0.0				15	44	2	1		
7/11 1430	148	69	9.2	98	128	7.3 / 7.9	1.10		4.2 / 0.19		0 / 0.00	63 / 1.03		7.0 / 0.20			0.0				15	59	3	2		
8/14 1400	46	71	10.3	115	135	7.4 / 7.9	1.10		4.1 / 0.22		0 / 0.00	66 / 1.08		6.8 / 0.16			0.0				16	58	4	1		
9/5 1051	55	62	8.1	83	140	7.2 / 7.8	2.0 / 1.00	1.1 / 0.17	4.2 / 0.18	0.5 / 0.01	0 / 0.00	66 / 1.08	7.0 / 0.15	6.7 / 0.19	0.2 / 0.00	0.0 / 0.00	0.0	19	PO_4 0.20 As 0.01 ABS 0.00	84[f] 89[f]	13	59	5	3		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)
ANALYSES OF SURFACE WATER
NORTH COASTAL REGION (NO. 1)

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

TRINITY RIVER NEAR HOOPA (STA. 4)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										USGS
10/8 1145	850	58	10.4	101	175	7.8 / 7.9	1.64[c]		4.3 / 0.19		0 / 0.00	84 / 1.54		5.0 / 0.14			0.0				10	82	5	3	Median 6.2	
11/5 1205	1,280	57	10.6	102	179	7.8 / 8.2	1.68[c]		4.8 / 0.21		0 / 0.00	100 / 1.64		4.8 / 0.14			0.0				11	84	2	1	Maximum 2,400.	
12/3 1100	32,600	50	11.9	105	109	7.6 / 7.5	1.04[c]		3.2 / 0.14		0 / 0.00	62 / 1.02		1.8 / 0.05			0.1				12	52	1	160	Minimum .23	
1963																										
1/7 0940	2,150	42	12.9	102	172	7.5 / 8.1	1.68[c]		3.8 / 0.17		0 / 0.00	96 / 1.57		3.0 / 0.08			0.0				9	84	5	2		
2/5 1035	17,000	50	11.8	104	120	7.3 / 7.9	1.17[c]		2.3 / 0.10		0 / 0.00	70 / 1.15		3.1 / 0.09			0.1				8	58	1	49		
3/12 1000	2,760	48	11.9	102	174	7.7 / 8.2	1.66[c]		3.2 / 0.14		0 / 0.00	100 / 1.64		2.8 / 0.08			0.0				8	83	1	3		
4/1 1035	16,800	47	12.1	104	135	7.4 / 8.0	1.30[c]		2.6 / 0.11		0 / 0.00	81 / 1.33		0.8 / 0.02			0.0				8	65	0	150		
5/6 0930	11,300	52	11.1	101	120	7.6 / 7.9	15 / 0.75	5.0 / 0.41	2.4 / 0.10	0.6 / 0.02	0 / 0.00	72 / 1.18	3.0 / 0.06	0.8 / 0.02	0.2 / 0.00	0.1 / 0.01	0.0	1.1	PO_4 0.10 As 0.00 ABS 0.00	78[f] 80[g]	8	58	0	20		
6/10 0940	5,220	63	9.5	99	126	7.4 / 8.2	1.22[c]		3.0 / 0.13		0 / 0.00	74 / 1.21		2.8 / 0.08			0.0				10	71	1	6		
7/16 0905	1,230	69	8.8	98	171	7.4 / 8.2	1.54[c]		3.7 / 0.16		0 / 0.00	98 / 1.61		5.4 / 0.15			0.0				9	82	2	1		
8/12 1425	750	75	9.1	107	195	8.0 / 8.3	1.87[c]		4.4 / 0.19		2 / 0.07	104 / 1.70		6.1 / 0.17			0.0		Tot. alk. 108		9	93	4	1		
9/3 1500	544	73	9.0	104	198	8.4 / 8.5	25 / 1.25	7.4 / 0.69	4.6 / 0.20	0.6 / 0.02	4 / 0.13	101 / 1.66	7.0 / 0.15	5.0 / 0.17	0.2 / 0.00	0.2 / 0.01	0.0	1.1	Tot. alk. 102 PO_4 0.00 As 0.00 ABS 0.00	121[f] 120[g]	9	95	6	5		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), mangonese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH), City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

TRINITY RIVER AT LEWISTON (STA. 4a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million (Calcium (Ca) / equivalents per million)	(Magnesium (Mg))	(Sodium (Na))	(Potassium (K))	(Carbonate (CO_3))	(Bicarbonate (HCO_3))	(Sulfate (SO_4))	(Chloride (Cl))	(Nitrate (NO_3))	(Fluoride (F))	(Boron (B))	(Silica (SiO_2))	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
10/8 0900	203	50	11.3	100	97	7.6 / 7.7	0.88[c]		2.4 / 0.10		0 / 0.00	58 / 0.95		2.2 / 0.06			0.0				10	44	0	2	Median 6.2	
11/5 0920	225	48	11.0	95	89	7.6 / 7.9	0.92[c]		2.3 / 0.10		0 / 0.00	56 / 0.92		2.4 / 0.07			0.0				10	46	0	1	Maximum 230.	
12/3 0900	541	46	11.0	92	117	7.2 / 7.6	1.02[c]		4.6 / 0.20		0 / 0.00	58 / 0.95		2.0 / 0.06			0.1				16	51	3	70	Minimum .06	
1963																										
1/7 0730	136	41	12.2	95	107	7.2 / 7.8	1.00[c]		2.4 / 0.10		0 / 0.00	62 / 1.02		1.5 / 0.04			0.0				9	50	0	2		
2/5 0800	260	47	11.2	95	115	7.1 / 7.7	1.00[c]		3.7 / 0.16		0 / 0.00	61 / 1.00		3.0 / 0.08			0.1				13	53	3	20		
3/12 0750	191	47	11.7	99	106	7.5 / 7.9	1.00[c]		2.1 / 0.09		0 / 0.00	62 / 1.02		1.8 / 0.05			0.0				8	50	0	3		
4/1 0810	185	45	12.0	105	99	7.2 / 7.8	0.94[c]		2.1 / 0.09		0 / 0.00	54 / 0.89		1.5 / 0.04			0.0				9	47	3	8		
5/6 0705	1,740	47	11.5	104	93	7.3 / 7.8	6.4 / 0.32	7.1 / 0.58	2.2 / 0.10	0.4 / 0.01	0 / 0.00	54 / 0.89	1.0 / 0.02	2.2 / 0.06	0.8 / 0.01	0.0 / 0.00	0.0	14	PO_4 0.00	61[f] 74[g]	10	45	1	6		
6/10 0715	2,640	64	9.5	105	82	7.3 / 7.9	0.78[c]		1.8 / 0.08		0 / 0.00	49 / 0.80		1.6 / 0.05			0.0				9	39	0	2		
7/16 0635	159	54	9.9	98	93	7.4 / 7.8	0.88[c]		2.1 / 0.09		0 / 0.00	54 / 0.89		1.8 / 0.05			0.0				9	44	0	1		
8/12 0750	164	51	10.6	101	93	7.4 / 7.8	0.88[c]		2.1 / 0.09		0 / 0.00	52 / 0.85		2.5 / 0.07			0.0				9	44	1	1		
9/3 0825	169	51	10.5	100	93	7.2 / 7.8	7.2 / 0.36	6.4 / 0.53	1.9 / 0.08	0.8 / 0.02	0 / 0.00	52 / 0.85	3.0 / 0.06	2.6 / 0.07	0.3 / 0.00	0.0 / 0.00	0.0	16	PO_4 0.00 As 0.02 ABS 0.00	64[f] 52[g]	8	44	1	2		

o Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)
ANALYSES OF SURFACE WATER

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

TRINITY RIVER NEAR BURNT RANCH (STA. 46)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/ b/	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform h/ MPN/ml	Analyzed by i/
1962																										USGS
10/12 1110	2,560	53	10.7	98	94	7.4 / 7.4	24 / 0.84		2.6 / 0.11		0 / 0.00	50 / 0.82		3.5 / 0.10			0.0				12	42	1	60		
11/5 1100	940	55	10.3	97	152	7.4 / 8.3	42 / 1.40		4.6 / 0.17		1 / 0.03	72 / 1.29		6.0 / 0.17			0.0		Tot. alk. 81		11	79	4	1		
12/6 1200	2,280	48	11.3	97	132	7.7 / 7.8	37 / 1.24		3.2 / 0.14		0 / 0.00	72 / 1.18		2.6 / 0.00			0.0				10	62	3	2		
1963																										
1/16 1100	750	40	12.4	99	167	7.4 / 7.8	48 / 1.60		4.6 / 0.18		0 / 0.00	92 / 1.51		4.2 / 0.12			0.0				10	80	5	2		
2/8 1115	2,800	50	11.4	101	133	7.4 / 7.8	38 / 1.25		2.4 / 0.13		0 / 0.00	76 / 1.25		4.6 / 0.13			0.0				9	63	1	9		
3/15 1100	975	46	12.1	101	168	7.3 / 8.2	49 / 1.60		3.6 / 0.14		0 / 0.00	96 / 1.56		3.2 / 0.09			0.0				8	80	2	2		
4/4 1100	2,550	49	11.5	103	161	7.6 / 8.3	46 / 1.50		2.8 / 0.12		2 / 0.10	87 / 1.43		1.8 / 0.05			0.0		Tot. alk. 72		7	78	2	6		
5/2 0840	4,300	50	11.1	101	103	7.4 / 7.8	10 / 0.50	6.1 / 0.50	2.1 / 0.09	0.3 / 0.01	0 / 0.00	50 / 0.98	2.0 / 0.04	2.0 / 0.06	0.8 / 0.01	0.0 / 0.00	0.0	12	PO_4 0.00	66 f/ 68 g/	8	50	1	15		
6/14 0945	3,340 (est.)	67	9.1	101	100	7.4 / 8.0	19 / 0.94		2.4 / 0.10		0 / 0.00	58 / 0.95		2.1 / 0.06			0.0				10	47	1	1		
7/16 0805	568	67	8.9	99	130	7.2 / 7.7	26 / 1.29		2.4 / 0.15		0 / 0.00	78 / 1.28		2.1 / 0.14			0.0				11	63	0	1		
8/15 1000	318	70	8.8	101	164	7.6 / 8.3	38 / 1.53		4.5 / 0.20		1 / 0.03	87 / 1.43		6.4 / 0.19			0.0		Tot. alk. 80		12	80	3	1		
9/6 0900	284	70	8.6	99	165	7.2 / 8.1	34 / 0.95	7.1 / 0.58	4.0 / 0.17	0.8 / 0.02	0 / 0.00	89 / 1.46	5.0 / 0.10	8.0 / 0.23	0.1 / 0.00	0.0 / 0.00	0.0	12	PO_4 0.00 As 0.00 ABS 0.00	100 f/ 88 g/	13	77	4	4		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR), United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH), Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR), as indicated.

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER NEAR MCCANN (STA. 5)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/ b/	Mineral constituents in ppm: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ NC ppm	Turbidity in ppm	Coliform h/ MPN/ml	Analyzed by i/
1-4-61																										USGS
1100		43	11.5	100	248	7.4 7.1	27 1.35		7.7 0.33		0 0.00	122 2.11		8.5 0.24			0.1				12	120	14	3	Median 2.3	
1130		50	11.5	104	231	7.8 7.5	28 2.22		3.0 0.13		0 0.00	110 1.77		5.0 0.14			0.2		Tot. alk. 128		11	111	6	1	Maximum 620.	
1200		51	11.9	110	119	7.9 7.6	14 1.17		4.2 0.17		0 0.00	63 1.07		1.8 0.05			0.1				14	56	3	160	Minimum .23	
1-11-61																										
1100		44	12.2	104	148	7.4 7.1	36 1.80		4.6 0.20		0 0.00	108 1.77		2.0 0.06			0.1				11	94	5	3		
1130		45	11.7	103	139	7.4 7.1	32 1.60		4.4 0.19		0 0.00	96 1.57		2.4 0.07			0.1				13	88	0	45		
1200		50	11.1	100	140	7.8 7.4	30 1.50		4.1 0.18		0 0.00	114 1.87		2.8 0.08			0.1				14	87	4	8		
1230		44	11.0	100	138	7.8 7.4	28 1.40		3.7 0.16		0 0.00	96 1.57		1.6 0.05			0.1				12	81	0	2400		
1300		50	11.0	99	134	7.8 7.4	28 1.40	6.4 0.53	3.8 0.17	0.5 0.01	0 0.00	76 1.25	7.1 0.15	1.5 0.04	0.8 0.01	0.2 0.00	0.2	22.2	PO_4 0.11	80[f] 90[g]	12	88	0	150		
1400		44	10.8	98	143	7.8 7.4	30 1.50		5.1 0.22		0 0.00	108 1.77		4.4 0.12			0.2		Tot. alk. 114		11	94	1	2		
1430		51	10.8	98	205	8.1 7.8	41 2.05		8.1 0.35		0 0.00	137 2.25		6.0 0.17			0.1		Tot. alk. 140		11	120	5	1		
1500		51	10.9	98	208	8.1 7.8	40 2.00		7.4 0.32		0 0.00	134 2.20		6.0 0.17			0.2		Tot. alk. 138		11	124	11	1		
1530		54	10.6	98	221	8.1 7.8	45 2.25	7.1 0.58	8.1 0.35	1.4 0.04	0 0.00	132 2.16	7.1 0.15	6.8 0.19	1.1 0.02	0.3 0.02	0.1	19	Tot. alk. 138 PO_4 0.10 ABS 0.10	160[f] 154[g]	11	154	11	2		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

VAN DUZEN RIVER NEAR BRIDGEVILLE (STA. 5A)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/ b/	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chlorides (Cl)	Nitrate (NO_3)	Fluorides (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform h MPN/ml	Analyzed by i
1962																										USGS
10/10 1030	5,400	55	10.7	101	104	7.5 7.4	21 1.04 c		2.9 0.13		0 0.00	31 0.84		2.0 0.06			0.01				1.5	47	5	250	Median 17.	
11/7 0835	126	53	10.9	100	197	7.4 8.4	36 1.80 c		5.2 0.23		4 0.13	100 1.64		4.6 0.13			0.03		Tot. alk. 84		11	99	1	1	Maximum 240 .	
12/4 1600	2,730	50	11.8	104	[illegible]	7.1 7.7	21 1.04 c		4.0 0.17		0 0.00	29 0.95		1.5 0.04			0.1				1	47			Minimum 5	
1963																										
1/8 1525	210	44	12.5	102	154	7.3 8.1	29 1.42 c		4.0 0.17		0 0.00	84 1.38		2.0 0.06			0.03				11	71	4	5		
2/6 1450	2,320	54	11.1	103	99	7.2 7.1	22 1.10 c		3.9 0.17		0 0.00	72 1.18		2.0 0.06			0.03				10	69	4	40		
3/13 1515	207	50	11.4	105	158	7.8 8.1	29 1.44 c		3.5 0.15		0 0.00	85 1.39		2.0 0.06			0.1				9	75				
4/2 1515	2,070	47	12.2	104	105	7.2 7.4	19 0.96 c		3.0 0.13		0 0.00	68 1.11		1.5 0.04			0.02				7.5	69	4	130		
5/7 1345	2,200	54	10.9	102	98	7.6 7.8	12 0.60	2.0 1.30	2.8 0.12	1.4 0.04	0 0.00	42 0.67	2.0 0.10	1.0 0.03	0.3 0.01	0.2 0.01	0.03	8.1	PO_4 0.10	76 [illegible]	11	41	4	7		
6/11 1500	163	69	9.0	100	162	7.8 8.3	29 1.51 c		4.6 0.20		1 0.03	87 1.43		5.0 0.07			0.1		T. alk. 72		7.5	75	4			
7/18 1430	42	76	9.3	111	199	8.4 8.4	36 1.80 c		5.2 0.23		2 0.07	104 1.74		4.2 0.12			0.1		Tot. alk. 86		11	99	4			
8/13 1535	22	76	9.5	113	225	8.4 8.4	40 2.00 c		6.6 0.29		4 0.13	114 1.87		4.8 0.14			0.2		Tot. alk. 100		7.5	[illegible]	4	1		
9/4 1515	15	76	9.8	117	237	8.6 8.6	31 1.55	7.4 0.61	6.8 0.30	1.0 0.03	2 0.07	118 1.93	16 0.33	5.4 0.15	0.5 0.01	0.1 0.01	0.06	11	Tot. alk. 100 PO_4 0.00 ABS 0.00	176 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexovalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

OUTLET CREEK NEAR LONGVALE (STA. 5b)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/	Mineral constituents in ppm: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonates (CO_3)	Bicarbonates (HCO_3)	Sulfates (SO_4)	Chlorides (Cl)	Nitrates (NO_3)	Fluorides (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: NC ppm	Turbidity in ppm	Coliform MPN/ml h	Analyzed by i
							(equivalents per million)																			
1962																										USGS
10/10 0810	2,260	60	9.3	93	111	7.0 / 7.0	0.86 c		4.3 / 0.19		0 / 0.00	39 / 0.64		6.0 / 0.17			0.2				18	43	11	200		
11/14 1600	45	52	10.7	97	183	7.8 / 8.1	1.45 c		8.7 / 0.38		0 / 0.00	91 / 1.49		8.8 / 0.25			0.3				21	73	0	5		
12/11 1545	145	49	10.8	94	142	7.2 / 8.1	1.16 c		6.4 / 0.28		0 / 0.00	74 / 1.21		4.8 / 0.14			0.4				19	58	0	5		
1963																										
1/3 1425	98	46	11.5	98	150	7.4 / 7.9	1.24 c		7.0 / 0.30		0 / 0.00	78 / 1.28		8.8 / 0.25			0.3				19	62	0	5		
2/12 1525	1,400	54	10.6	98	106	7.6 / 7.4	0.90 c		4.7 / 0.20		0 / 0.00	55 / 0.90		3.0 / 0.08			0.2				17	48	3	60		
3/12 1550	76	56	10.9	104	170	7.7 / 8.0	1.40 c		7.1 / 0.31		0 / 0.00	90 / 1.48		7.4 / 0.21			0.4				18	70	0	3		
4/10 1730	3,090	52	10.6	99	77	8.0 / 7.7	0.64 c		3.3 / 0.14		0 / 0.00	41 / 0.67		2.2 / 0.06			0.0				18	32	0	50		
5/7 1300	178	61	9.6	100	142	7.5 / 7.6	15 / 0.75	5.7 / 0.47	5.8 / 0.25	1.1 / 0.03	0 / 0.00	78 / 1.28	6.0 / 0.12	4.2 / 0.12	0.8 / 0.01	0.2 / 0.01	0.2	12	PO_4 0.05	89 f / 83 g	17	61	0	3		
6/10 1500	31	76	9.3	113	202	-- / 8.2	1.76 c		8.9 / 0.39		0 / 0.00	115 / 1.88		6.8 / 0.19			0.6				18	88	0	2		
7/8 1700	10	73	9.1	107	240	8.4 / 8.2	2.08 c		11 / 0.48		0 / 0.00	133 / 2.18		12 / 0.34			1.0				19	104	0	2		
8/5 1545	3	83	7.2	94	267	-- / 8.3	2.24 c		13 / 0.57		3 / 0.10	136 / 2.23		15 / 0.42			1.3		Tot. alk. 142		20	112	0	1		
9/11 0945	2	69	8.5	97	310	7.4 / 8.1	30 / 1.50	12 / 0.99	14 / 0.61	1.8 / 0.05	0 / 0.00	148 / 2.43	7.0 / 0.15	22 / 0.62	0.4 / 0.01	0.1 / 0.01	1.8	13	PO_4 0.00 As 0.00 ABS 0.00	175 f / 176 g	20	123	2	1		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves.

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER, MIDDLE FORK AT DOS RIOS (STA. 5c)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1965																										USGS
10/10 0930	--	61	9.5	96	286	7.0 / 7.6	2.44[c]		11 / 0.48		0 / 0.00	121 / 1.98		33 / 0.93			0.1				16	122	23	400		
11/14 1700	280	51	11.1	99	175	7.6 / 8.1	1.56[c]		4.5 / 0.20		0 / 0.00	92 / 1.51		4.9 / 0.14			0.0				11	78	3	1		
12/11 1650	1,050	45	11.5	95	159	7.2 / 8.1	1.47[c]		4.0 / 0.17		0 / 0.00	86 / 1.41		2.6 / 0.07			0.0				10	73	2	15		
1966																										
1/3 1515	662	44	11.6	94	185	7.6 / 8.1	1.71[c]		4.8 / 0.21		0 / 0.00	99 / 1.62		5.3 / 0.15			0.0				11	85	4	5		
2/12 1620	5,620	51	11.6	104	147	7.6 / 7.4	1.34[c]		3.8 / 0.17		0 / 0.00	79 / 1.29		2.0 / 0.06			0.0				11	67	2	190		
3/12 1640	489	53	10.9	100	210	7.8 / 8.3	1.96[c]		5.0 / 0.22		0 / 0.00	112 / 1.84		4.8 / 0.14			0.1				10	98	6	5		
4/10 1830	9,500	49	11.5	103	130	8.6 / 8.1	1.24[c]		2.3 / 0.10		0 / 0.00	73 / 1.20		1.8 / 0.05			0.0				7	62	2	55		
5/7 1355	3,800	56	10.8	106	118	7.6 / 8.1	15 / 0.75	4.0 / 0.33	2.8 / 0.12	0.5 / 0.01	0 / 0.00	64 / 1.05	6.8 / 0.14	0.5 / 0.01	0.3 / 0.00	0.5 / 0.03	0.1	8.6	PO_4 0.35 As 0.00 ABS 0.00	71[f] 70[g]	10	54	2	85		
6/10 1600	304	71	8.5	99	187	-- / 8.2	1.74[c]		4.4 / 0.19		0 / 0.00	98 / 1.61		3.2 / 0.09			0.1				10	87	3	8		
7/8 1810	157	74	8.4	100	244	8.4 / 8.2	2.36[c]		6.1 / 0.27		0 / 0.00	126 / 2.07		6.0 / 0.17			0.0				10	118	15	2		
8/5 1710	48	83	8.4	110	275	-- / 8.5	2.50[c]		9.0 / 0.39		6 / 0.20	118 / 1.93		9.5 / 0.27			0.0		Tot. alk. 1.1		14	125	16	1		
9/11 1035	6	70	9.4	108	314	7.6 / 8.4	34 / 1.70	12 / 1.02	11 / 0.48	1.2 / 0.03	5 / 0.20	118 / 1.93	32 / 0.67	17 / 0.48	0.3 / 0.00	0.2 / 0.01	0.2	8.0	T t. alk. 13. PO_4 0.05 As 0.00 ABS 0.00	180[f] 182[g]	15	136	29	3		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER NEAR DOS RIOS (STA. 5d)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chlorides (Cl)	Nitrates (NO_3)	Fluorides (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
1/10 0845	--	61	8.8	94	227	7.6 / 7.7	44 / 1.42[c]		9.2 / 0.40		0 / 0.00	107 / 1.75		7.1 / 0.20			0.4				17	96	8	80		
2/14 1430	1.4	52	10.2	96	239	8.1 / 8.1	42 / 2.12[c]		8.5 / 0.37		0 / 0.00	132 / 2.16		5.1 / 0.14			0.1				15	100	0	1		
3/11 1430	1.5	48	10.4	94	105	7.4 / 8.1	29 / 1.45[c]		5.8 / 0.25		0 / 0.00	91 / 1.49		5.8 / 0.08			0.2				15	73	0	20		
1962																										
1/2 1545	1.2	45	11.1	92	181	8.2 / 8.1	32 / 1.59[c]		6.2 / 0.27		0 / 0.00	98 / 1.61		5.4 / 0.15			0.2				15	80	0	5		
2/12 1555	2,200	52	10.9	99	123	7.4 / 7.8	21 / 1.06[c]		4.1 / 0.18		0 / 0.00	66 / 1.08		1.5 / 0.04			0.1				14	54	0	120		
3/12 1615	140	56	10.7	102	200	7.7 / 8.1	36 / 1.80[c]		6.0 / 0.26		0 / 0.00	105 / 1.72		1.6 / 0.05			0.2				13	96	4	6		
4/10 1750	7,110	49	11.0	94	100	-- / 7.7	7 / 0.35[c]		3.3 / 0.14		0 / 0.00	60 / 0.98		1.5 / 0.04			0.0				13	48	0	55		
5/7 1585	1,900	59	10.3	104	136	7.6 / 7.8	25 / 0.90	3.9 / 0.32	4.3 / 0.19	1.0 / 0.03	0 / 0.00	76 / 1.25	8.9 / 0.17	1.5 / 0.04	0.6 / 0.01	0.1 / 0.01	0.1	11	PO_4 0.00	86[f] 83[g]	13	61	1	60		
6/10 1920	45	70	8.5	107	212	-- / 8.2	39 / 1.95[c]		6.2 / 0.27		0 / 0.00	118 / 1.93		4.5 / 0.13			0.2				12	95	0	2		
7/6 1745	31	74	9.4	112	229	7.4 / 8.4	42 / 2.12[c]		8.0 / 0.35		2 / 0.07	122 / 2.00		4.6 / 0.13			0.3		Tot. alk. 126		14	110	3	1		
8/5 1610	12	81	8.0	110	222	-- / 8.4	36 / 1.89[c]		9.3 / 0.40		3 / 0.10	109 / 1.79		5.7 / 0.16			0.1		Tot. alk. 115		17	95	1	1		
9/11 1410	7	71	4.3	108	233	7.4 / 8.1	26 / 1.30	7.4 / 0.65	12 / 0.44	1.2 / 0.03	0 / 0.00	113 / 1.85	17 / 0.35	6.5 / 0.18	0.8 / 0.01	0.1 / 0.01	0.3	5.7	PO_4 0.06 As 0.00 ABS 0.00	132[f] 135[g]	18	97	4	1		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)
ANALYSES OF SURFACE WATER

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER AT SCOTIA (STA. 6)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluorides (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
1962																										USGS
10/10 0915	3,160	59	9.3	91	231	7.5 / 8.4	Ca 2.00[c]		10 / 0.44		0 / 0.00	109 / 1.79		6.5 / 0.18			0.1				18	100	11	170	Median 15.	
11/7 0940	1,040	55	7.5	71	232	7.7 / 7.9	Ca 2.10[c]		7.3 / 0.32		0 / 0.00	121 / 1.98		4.8 / 0.14			0.2				13	108	9	1	Maximum 1,100.	
12/4 1425	36,200	53	10.9	100	116	7.3 / 7.7	Ca 1.00[c]		5.7 / 0.25		0 / 0.00	61 / 1.00		1.8 / 0.05			0.1				19	53	5	<20	Minimum .445-	
1963																										
1/8 1410	2,440	55	11.5	106	115	7.4 / 8.2	Ca 1.85[c]		8.2 / 0.36		0 / 0.00	116 / 1.90		11 / 0.31			0.				16	74	9	2		
2/6 1325	23,100	55	10.6	100	136	7.3 / 8.0	Ca 1.10[c]		5.1 / 0.22		0 / 0.00	72 / 1.18		4.0 / 0.11			0.1				16	56	0	220		
3/13 1340	2,510	55	12.1	114	209	8.1 / 8.9	Ca 1.88[c]		5.5 / 0.24		0 / 0.00	115 / 1.88		3.8 / 0.09			0.0				11	64	9	3		
4/2 1405	28,000	50	11.4	106	131	7.6 / 8.0	Ca 1.12[c]		4.4 / 0.19		0 / 0.00	72 / 1.18		2.2 / 0.06			0.0				14	56	6	350		
5/7 1230	10,200	62	10.0	102	141	7.6 / 8.0	Ca 16 / 0.80	Mg 5.2 / 0.43	5.2 / 0.23	K 0.8 / 0.02	0 / 0.00	76 / 1.25	4.0 / 0.19	2.8 / 0.08	0.3 / 0.00	0.1 / 0.01	0.0	11	PO_4 0.20 As: 0.00 ABS:	87[f] 92[g]	16	62	6	1.8		
6/11 1340	1,530	72	10.0	114	215	8.0 / 8.4	Ca 1.99[c]		6.2 / 0.27		3 / 0.10	116 / 1.90		6.1 / 0.17			0.0		Tot. alk. 12		13	100	1	4		
7/18 1315	430	71	9.1	102	264	8.6 / 8.2	Ca 2.47[c]		7.6 / 0.33		4 / 0.13	150 / 2.46		7.8 / 0.20			0.0		Tot. alk. 142		12	124	1	1		
8/13 1320	210	75	9.7	113	253	8.3 / 8.5	Ca 2.30[c]		8.8 / 0.39		4 / 0.13	130 / 2.13		8.5 / 0.24			0.0		Tot. alk. 138		14	115	2	1		
9/4 1400	148	79	13.0	159	272	8.3 / 8.5	Ca 34 / 1.70	Mg 9.5 / 0.78	8.5 / 0.37	K 1.4 / 0.04	6 / 0.20	138 / 2.26	18 / 0.31	6.5 / 0.18	0.5 / 0.01	0.3 / 0.02	0.1	0.4	Tot. alk. 152 PO_4 0.05 As: 0.00 ABS 0.00	156[f] 151[g]	13	124	1	5		

a Field pH

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

MAD RIVER NEAR ARCATA (STA. 6a)

Date and time sampled P.S.T.	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in ppm: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonates (CO_3)	Bicarbonates (HCO_3)	Sulfate (SO_4)	Chlorids (Cl)	Nitrats (NO_3)	Fluorids (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C. ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by[i]
							(equivalents per million)																			
1962																										USGS
10/10 1350	5,070	58	10.1	98	99	7.2 / 7.2	— / 0.83[c]		2.4 / 0.23		0 / 0.00	39 / 0.64		4.7 / 0.13			0.1				22	42	10	60	Median 18.	
11/7 1630	400	53	10.4	95	142	7.3 / 7.6	— / 1.26[c]		4.1 / 0.18		0 / 0.00	84 / 1.38		2.2 / 0.06			0.1				12	63	1	4	Maximum 500.	
12/5 1000	3,730	50	11.3	100	99	7.3 / 7.4	— / 0.90[c]		4.2 / 0.18		0 / 0.00	50 / 0.82		2.8 / 0.08			0.1				17	45	4	100	Minimum .13	
1963																										
1/7 1605	670	48	12.0	103	124	7.3 / 7.8	— / 1.14[c]		3.7 / 0.16		0 / 0.00	66 / 1.08		2.2 / 0.06			0.1				10	57	3	10		
2/5 1625	4,680	53	11.6	106	89	7.3 / 7.6	— / 0.77[c]		3.3 / 0.14		0 / 0.00	44 / 0.72		3.0 / 0.08			0.0				15	38	2	70		
3/12 1620	380	56	11.5	109	143	7.8 / 8.0	— / 1.26[c]		3.5 / 0.15		0 / 0.00	77 / 1.26		2.5 / 0.07			0.0				11	63	0	8		
4/1 1610	7,110	49	12.2	106	90	7.8 / 7.8	— / 0.79[c]		2.6 / 0.11		0 / 0.00	45 / 0.74		1.5 / 0.04			0.0				12	40	3	200		
5/8 0715	3,400	51	11.0	98	87	7.3 / 7.5	12 / 0.60	1.8 / 0.15	3.3 / 0.14	0.5 / 0.01	0 / 0.00	44 / 0.72	4.0 / 0.08	2.5 / 0.06	0.0 / 0.00	1.0 / 0.05	0.0	8.0	PO_4 0.20 ABS 0.00	55[f] 69[g]	16	38	2	110		
6/12 1425	250	70	9.1	101	161	7.6 / 8.2	— / 1.47[c]		4.4 / 0.19		0 / 0.00	88 / 1.44		4.5 / 0.13			0.0				11	74	2	2		
7/17 1445	*	72	9.0	102	208	7.7 / 8.1	— / 1.95[c]		4.8 / 0.21		0 / 0.00	119 / 1.95		5.1 / 0.14			0.0				10	98		2		
8/14 1530	105 (est.)	74	9.8	114	194	7.9 / 8.2	— / 1.80[c]		5.0 / 0.22		0 / 0.00	103 / 1.69		4.8 / 0.14			0.0				11	90	6	2		
9/5 1405	240 (est.)	68	9.4	103	171	7.8 / 8.3	28 / 1.40	2.7 / 0.22	3.8 / 0.17	0.6 / 0.02	1 / 0.03	91 / 1.49	9.0 / 0.19	3.0 / 0.08	0.5 / 0.01	0.2 / 0.01	0.1	7.0	Tot. alk. 93 PO_4 0.30 As. 0.04 ABS 0.00	101[f] 102[g]	7	81	5	2		

a Field pH.

b Laboratory pH.

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0 / 0.00 except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)
ANALYSES OF SURFACE WATER

TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

EEL RIVER, SOUTH FORK NEAR MIRANDA (STA. 7)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1962																										USGS
10/9 1415	500 (est.)	63	9.3	96	228	7.6 / 7.9	2.03[c]		10 / 0.44		0 / 0.00	125 / 2.05		9.2 / 0.26			0.0				18	102	0	35	Median 23.	
11/6 1320	340	58	9.6	93	183	7.7 / 7.8	1.54[c]		7.4 / 0.32		0 / 0.00	98 / 1.61		4.2 / 0.13			0.2				17	77	0	1	Maximum 7,000.	
12/4 1120	8,210	53	11.1	102	101	7.5 / 7.8	0.80[c]		3.4 / 0.23		0 / 0.00	53 / 0.87		3.4 / 0.10			0.0				22	40	0	180	Minimum .62	
1963																										
1/8 1225	635	45	12.0	99	158	7.5 / 7.8	1.32[c]		7.1 / 0.31		0 / 0.00	82 / 1.34		6.6 / 0.19			0.1				19	66	0	2		
2/6 1145	5,400	55	10.7	100	112	7.3 / 7.8	0.90[c]		3.6 / 0.24		0 / 0.00	60 / 0.98		4.9 / 0.14			0.1				21	45	0	95		
3/13 1225	556	52	11.7	100	163	7.7 / 8.1	1.36[c]		5.7 / 0.25		0 / 0.00	86 / 1.41		4.0 / 0.11			0.0				16	68	0	3		
4/2 1240	5,780	50	11.5	102	110	7.4 / 7.9	0.88[c]		5.2 / 0.23		0 / 0.00	61 / 1.00		3.2 / 0.09			0.0				21	44	0	120		
5/7 1050	1,370	58	10.1	99	139	7.7 / 8.1	14 / 0.70	0.1 / 0.50	6.1 / 0.27	1.0 / 0.03	0 / 0.00	76 / 1.25	7.0 / 0.15	3.2 / 0.09	0.4 / 0.01	0.1 / 0.01	0.0	16	PO_4 0.10	91[f] 99[g]	18	60	0	25		
6/11 1215	290	71	9.7	110	176	8.6 / 8.2	1.52[c]		6.6 / 0.29		0 / 0.00	99 / 1.62		6.5 / 0.18			0.0				16	76	0	1		
7/18 1120	150	73	9.5	110	209	8.4 / 8.2	1.85[c]		7.6 / 0.33		0 / 0.00	120 / 1.97		7.0 / 0.20			0.1				15	92	0	1		
8/13 1200	84	74	9.4	110	225	8.1 / 8.3	2.05[c]		8.5 / 0.37		3 / 0.10	121 / 1.98		7.8 / 0.22			0.0		Tot. alk. 127		15	102	0	2		
9/4 1230	58	75	9.4	111	224	8.1 / 8.2	24 / 1.20	4.5 / 0.78	8.0 / 0.35	1.1 / 0.03	0 / 0.00	128 / 2.05	8.0 / 0.17	8.0 / 0.23	0.8 / 0.01	0.1 / 0.01	0.1	7.2	PO_4 0.05 As 0.01 ABS 0.00	123[f] 125[g]	15	99	0	1		

a Field pH.

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as $\frac{0.0}{0.00}$ except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents.

g Gravimetric determination.

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service.

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS), San Bernardino County Flood Control District (SBCFCD), Metropolitan Water District of Southern California (MWD); Los Angeles Department of Water and Power (LADWP), City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-2 (Continued)

ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (NO. 1)

MATTOLE RIVER NEAR PETROLIA (STA. 7a)

Date and time sampled P.S.T	Discharge in cfs	Temp in °F	Dissolved oxygen ppm	Dissolved oxygen %Sat	Specific conductance (micromhos at 25°C)	pH a/b	Mineral constituents in parts per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$ Total ppm	Hardness as $CaCO_3$ N C ppm	Turbidity in ppm	Coliform[h] MPN/ml	Analyzed by i
1961																										USGS
1 / 0930	1,100	62	11.5	97	201	7.3/7.5	1.70		8.2/0.39		0/0.00	88/1.44		4.8/0.14			0.0				19	85	13	95	Median 23.	
11/0850	980	54	8.9	82	191	7.4/7.5	1.60		7.4/0.32		0/0.00	88/1.44		5.0/0.14			0.2				17	80	8	1	Maximum 7,000.	
12/0945	4,200	54	11.2	100	110	6.6/7.0	0.84		5.4/0.23		0/0.00	24/0.84		2.6/0.10			0.0				21	42	11	350	Minimum .62	
1961																										
1/0930	970	54	10.1	94	139	7.1/7.8	1.28		6.2/0.27		0/0.00	71/1.16		4.7/0.13			0.0				17	64	6	6		
4/0845	6,500	55	10.2	100	118	7.1/7.7	0.84		7.6/0.33		0/0.00	49/0.80		4.2/0.10			0.0				28	42	2	300		
5/1000	978	54	11.4	104	142	7.3/8.0	1.34		6.4/0.28		0/0.00	78/1.28		4.0/0.11			0.0				16	67	3	3		
6/0930	4,300	54	11.5	100	111	6.6/7.5	0.80		5.2/0.22		0/0.00	54/0.89		4.2/0.09			0.0				13	43	0	170		
7/1040	3,500	56	11.3	97	112	7.0/7.7	1.6/0.07	3.0/0.25	5.4/0.23	1.1/0.03	0/0.00	54/0.89	7.0/0.15	4.2/0.07	1.0/0.02	0.2/0.01	0.0	13	PO_4 0.00	73[f] 95[g]	30	44	11	200		
8/11 0850	980	53	11.4	101	175	7.3/8.1	1.48		6.8/0.30		0/0.00	80/1.41		4.0/0.11			0.0				17	74	3	1		
9/1015	914	58	11.4	100	214	7.3/8.1	1.84		7.0/0.31		0/0.00	112/1.84		4.8/0.14			0.0				14	92	0	1		
10/0830	1,100	57	11.1	104	228	7.0/8.3	1.9		8.2/0.36		4/0.13	110/1.80		3.8/0.11			0.1		Tot. alk. 118		16	98	1	3		
11/0940	50	53	11.1	107	244	7.3/8.2	2.0/0.10	1.9/0.16	7.4/0.34	1.4/0.04	0/0.00	112/1.95	1.8/0.37	5.0/0.14	0.4/0.01	0.2/0.01	0.0	13	PO_4 0.05 As 0.00 ABC 0.00	143[f] 138[g]	14	104	6	1		

a Field pH

b Laboratory pH

c Sum of calcium and magnesium in epm.

d Iron (Fe), aluminum (Al), arsenic (As), copper (Cu), lead (Pb), manganese (Mn), zinc (Zn), and hexavalent chromium (Cr^{+6}), reported here as 0.0/0.00 except as shown.

e Derived from conductivity vs TDS curves

f Determined by addition of analyzed constituents

g Gravimetric determination

h Annual median and range, respectively. Calculated from analyses of duplicate monthly samples made by California Department of Public Health, Division of Laboratories, or United States Public Health Service

i Mineral analyses made by United States Geological Survey, Quality of Water Branch (USGS); United States Department of the Interior, Bureau of Reclamation (USBR); United States Public Health Service (USPHS); San Bernardino County Flood Control District (SBCFCD); Metropolitan Water District of Southern California (MWD), Los Angeles Department of Water and Power (LADWP); City of Los Angeles, Department of Public Health (LADPH); City of Long Beach, Department of Public Health (LBDPH); Terminal Testing Laboratories, Inc. (TTL); or California Department of Water Resources (DWR); as indicated.

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TABLE D-3

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

TABLE D-3

SPECTROGRAPHIC ANALYSES OF SURFACE WATER

NORTH COASTAL REGION (No. 1)

Station	Sta No	Date	Constituents in parts per billion															
			Aluminum (Al)	Beryllium (Be)	Bismuth (Bi)	Cadmium (Cd)	Cobalt (Co)	Chromium (Cr)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Manganese (Mn)	Molybdenum (Mo)	Nickel (Ni)	Lead (Pb)	Titanium (Ti)	Vanadium (V)	Zinc (Zn)
Klamath River below Iron Gate Dam	1f	9-10-6	25	1.3*	1.3*	3.3*	1.3*	1.3*	3.*	10	0.7*	1.3*	4.*	1.3*	1.3*	3.3*	1.3*	17	0.7*
Klamath River at Somesbar	2	9-10-6	27	1.3*	1.3*	3.3*	1.3*	1.3*	3.*	14	0.7*	1.3*	4.*	1.3*	1.3	3.3*	1.3*	1.3**	0.7*
Klamath River near Seiad Valley	2b	9-02-6	187	1.3*	1.3*	3.3*	1.3*	1.3*	3.3*	17	0.7*	1.3*	3.3*	1.3*	1.3*	3.3*	1.3*	11	0.7*
Klamath River near Klamath	3	9-08-6	170	1.3*	1.3*	3.3*	1.3*	1.3*	3.3*	12	0.7*	1.3*	3.3*	1.3*	3.4	3.3*	1.3*	1.3**	0.7*
Trinity River near Hoopa	4	9-09-6	108	1.3*	1.3*	3.3*	1.3*	1.3*	3.3*	11	0.7*	1.3*	3.3*	1.3*	1.4	3.3*	1.3*	1.3*	0.7*
Eel River, Middle Fork, at Dos Rios	5c	9-07-6	55	1.3*	1.3*	3.3*	1.3*	1.3*	3.3*	13	0.7*	1.3*	3.3	1.3*	3.3	3.3*	1.3*	1.3*	0.7*
Eel River at Scotia	6	9-07-6	67	1.3*	1.3*	3.3*	1.3*	1.3*	3.3*	23	0.7*	1.3*	3.3*	1.3*	1.3*	3.3*	1.3*	1.3*	0.7*
Mad River near Arcata	6a	9-08-6	147	1.3*	1.3*	3.3*	1.3*	1.3*	3.3*	34	0.7*	1.3*	3.3*	1.3*	3.3	3.3*	11	1.3*	0.7*
Klamath River below Iron Gate Dam	1f	9-11-6	23	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	13	13*	0.67*	3.3*	0.67**	0.67**	3.3*	1.3*	1	1.3*
Klamath River at Somesbar	2	9-03-6	8.7	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	9.3	13*	0.67*	3.3*	0.67**	3.3	3.3*	1.3*	1*	1.3*
Klamath River near Seiad Valley	2b	9-11-6	13	1.3**	0.67*	3.3*	3.3*	3.3*	3.3*	17	13*	0.67*	3.3*	0.67**	1.1	3.3*	1.3*	1*	1.3*
Klamath River near Klamath	3	9-05-6	123	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	8.7	13*	0.67*	3.3*	0.67**	1.3	3.3*	1.3*	1*	1.3*
Trinity River near Hoopa	4	9-09-6	5.5	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	4.3	13*	0.67*	3.3*	0.67**	1.1	3.3*	1.3*	1*	1.3*
Eel River, Middle Fork, at Dos Rios	5c	9-11-6	5.2	1.3*	0.67*	3.3*	3.3**	3.3*	3.3*	4.4	13*	0.67*	3.3*	0.67**	0.67**	3.3*	1.3*	1*	1.3*
Eel River at Scotia	6	9-04-6	6.3	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	7.2	13*	0.67*	3.3*	0.67**	0.67**	3.3*	1.3*	0.67*	1.3*
Mad River near Arcata	6a	9-05-6	11	1.3*	0.67*	3.3*	3.3*	3.3*	3.3*	10.7	13*	0.67*	3.3*	0.67**	0.67**	3.3*	1.3*	0.67*	1.3*

Note: For all stations the following results were also reported in May 1963: Silver (Ag) 0.0*

* Results are less than the amount indicated.
** Results are equal to but slightly less than the amount indicated.

TABLE D-4

RADIOASSAY OF SURFACE WATERS

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
			1963				
1E	ANTELOPE CREEK	TENNANT	5/1	0.5 ± 0.3	0.3 ± 0.3	0.0 ± 0.3	0.0 ± 6.2
1D	BUTTE CREEK	MACDOEL	5/1	0.0 ± 0.4	0.2 ± 0.4	10.2 ± 6.3	3.2 ± 6.2
5D	EEL RIVER	DOS RIOS	5/7	0.1 ± 0.1	0.3 ± 0.2	7.0 ± 4.2	14.9 ± 4.4
5	EEL RIVER	McCANN	5/7	0.2 ± 0.2	0.9 ± 0.4	1.2 ± 6.4	16.7 ± 6.7
5C	EEL RIVER,MID.FK.BELOW DOS RIOS		5/7	0.0 ± 0.2	0.1 ± 0.2	5.7 ± 4.7	11.4 ± 4.8
6	EEL RIVER	SCOTIA	5/7	0.1 ± 0.3	0.6 ± 0.4	0.0 ± 6.4	9.2 ± 6.6
7	EEL RIVER,SO.FK.	MIRANDA	5/7	0.1 ± 0.5	0.4 ± 0.4	3.0 ± 6.2	5.4 ± 6.3
1C	KLAMATH RIVER	ABV HAMBURG RES.	5/2	0.0 ± 0.4	0.0 ± 0.4	7.7 ± 6.3	5.4 ± 6.3
1F	KLAMATH RIVER	IRON GATE DAM	5/2	0.3 ± 0.3	0.1 ± 0.3	0.0 ± 6.4	0.0 ± 6.5
3	KLAMATH RIVER	KLAMATH	5/8	0.1 ± 0.3	0.4 ± 0.4	0.8 ± 6.6	0.0 ± 6.5
2B	KLAMATH RIVER	SEIAD VALLEY	5/2	0.0 ± 0.2	0.2 ± 0.3	0.0 ± 6.2	1.9 ± 6.3
2	KLAMATH RIVER	SOMESBAR	5/6	0.0 ± 0.5	0.3 ± 0.6	1.4 ± 6.2	5.2 ± 6.3
6A	MAD RIVER	ARCATA	5/8	0.4 ± 0.6	0.4 ± 0.6	2.2 ± 6.4	13.4 ± 6.6
7A	MATTOLE RIVER	PETROLIA	5/7	0.3 ± 0.4	1.2 ± 0.6	0.0 ± 6.3	20.4 ± 6.7
5B	OUTLET CREEK	LONGVALE	5/7	0.0 ± 0.1	0.0 ± 0.2	6.6 ± 4.7	1.8 ± 4.6
3B	REDWOOD CREEK	ORICK	5/8	0.0 ± 0.4	0.6 ± 0.5	4.0 ± 6.3	9.4 ± 6.4
2A	SALMON RIVER	SOMESBAR	5/-	0.0 ± 0.4	0.0 ± 0.4	2.1 ± 6.2	2.9 ± 6.2

TABLE D-4 (Continued)

RADIOASSAY OF SURFACE WATERS

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
			1963				
1B	SCOTT RIVER	FORT JONES	5/2	0.0 ± 0.4	0.3 ± 0.5	0.0 ± 6.4	3.1 ± 6.5
1A	SHASTA RIVER	YREKA	5/2	0.6 ± 0.4	0.1 ± 0.3	3.5 ± 6.2	5.0 ± 6.2
3A	SMITH RIVER	CRESCENT CITY	5/8	0.1 ± 0.3	0.1 ± 0.3	0.9 ± 6.4	3.0 ± 6.4
4B	TRINITY RIVER	BURNT RANCH	5/9	0.0 ± 0.4	0.0 ± 0.4	4.6 ± 6.5	12.1 ± 6.6
4	TRINITY RIVER	HOOPA	5/6	0.2 ± 0.3	0.5 ± 0.4	0.0 ± 6.4	0.0 ± 6.4
4A	TRINITY RIVER	LEWISTON	5/6	0.0 ± 0.2	0.0 ± 0.2	6.3 ± 6.4	0.0 ± 6.3
5A	VAN DUZEN RIVER	BRIDGEVILLE	5/7	0.1 ± 0.4	0.4 ± 0.5	7.0 ± 6.5	15.6 ± 6.6
1E	ANTELOPE CREEK	TENNANT	9/10	0.1 ± 0.3	0.0 ± 0.3	2.2 ± 6.1	0.0 ± 6.0
1D	BUTTE CREEK	MACDOEL	9/10	0.0 ± 0.3	0.0 ± 0.3	4.8 ± 6.1	0.0 ± 6.0
5D	EEL RIVER	DOS RIOS	9/11	0.3 ± 0.4	0.3 ± 0.4	3.7 ± 6.2	7.5 ± 6.2
5	EEL RIVER	McCANN	9/4	0.0 ± 0.3	0.0 ± 0.3	6.4 ± 6.1	4.8 ± 6.1
5C	EEL RIVER,MID FK.	BELOW DOS RIOS	9/11	0.0 ± 0.3	0.0 ± 0.3	4.8 ± 6.2	0.0 ± 6.1
6	EEL RIVER	SCOTIA	9/4	0.0 ± 0.4	0.1 ± 0.4	0.0 ± 6.1	0.1 ± 6.1
7	EEL RIVER,SO FK.	MIRANDA	9/4	0.0 ± 0.4	0.0 ± 0.4	2.3 ± 6.2	0.0 ± 6.1
1C	KLAMATH RIVER	ABV HAMBURG RES.	9/11	0.1 + 0.4	0.0 + 0.3	5.6 + 6.2	0.0 + 6.1
1F	KLAMATH RIVER	IRON GATE DAM	9/11	0.5 0.4	0.0 0.3	1.8 6.0	1.6 6.1

TABLE D-4 (Continued)

RADIOASSAY OF SURFACE WATERS

Sta. No.	Stream	Near	Date	Micro-micro curies per liter			
				Dissolved Alpha	Solid Alpha	Dissolved Beta	Solid Beta
			1963				
3	KLAMATH RIVER	KLAMATH	9/5	0.0 ± 0.3	0.0 ± 0.3	0.0 ± 6.1	0.0 ± 6.1
2B	KLAMATH RIVER	SEIAD VALLEY	9/11	0.3 ± 0.3	0.0 ± 0.2	4.0 ± 6.2	1.4 ± 6.2
2	KLAMATH RIVER	SOMESBAR	9/3	0.1 ± 0.4	0.0 ± 0.3	2.5 ± 6.1	4.5 ± 6.1
6A	MAD RIVER	ARCATA	9/5	0.0 ± 0.5	0.0 ± 0.5	6.0 ± 5.9	9.8 ± 6.1
7A	MATTOLE RIVER	PETROLIA	9/4	0.1 ± 0.2	0.1 ± 0.2	6.8 ± 6.0	3.8 ± 6.0
5B	OUTLET CREEK	LONGVALE	9/11	0.0 ± 0.3	0.0 ± 0.3	9.6 ± 6.3	0.0 ± 6.1
3B	REDWOOD CREEK	ORICK	9/5	0.0 ± 0.3	0.0 ± 0.3	0.0 ± 6.1	0.0 ± 6.1
2A	SALMON RIVER	SOMESBAR	9/3	0.0 ± 0.3	0.0 ± 0.3	4.4 ± 6.1	7.6 ± 6.1
1B	SCOTT RIVER	FORT JONES	9/10	0.2 ± 0.4	0.0 ± 0.3	0.0 ± 6.1	0.0 ± 6.1
1A	SHASTA RIVER	YREKA	9/11	0.0 ± 0.2	0.1 ± 0.2	5.2 ± 6.2	0.0 ± 6.0
3A	SMITH RIVER	CRESCENT CITY	9/5	0.0 ± 0.3	0.0 ± 0.3	0.0 ± 6.1	0.0 ± 6.0
4B	TRINITY RIVER	BURNT RANCH	9/6	0.1 ± 0.7	0.0 ± 0.6	6.5 ± 6.1	0.0 ± 5.9
4	TRINITY RIVER	HOOPA	9/3	0.1 ± 0.4	0.0 ± 0.3	1.5 ± 6.0	0.0 ± 5.9
4A	TRINITY RIVER	LEWISTON	9/3	0.0 ± 6.4	0.0 ± 6.4	1.6 ± 6.0	0.0 ± 6.1
5A	VAN DUZEN RIVER	BRIDGEVILLE	9/4	0.0 ± 0.3	0.0 ± 0.3	3.0 ± 6.1	1.9 ± 6.1

APPENDIX E

GROUND WATER QUALITY

TABLE OF CONTENTS

TABLES

GROUND WATER QUALITY

Data presented in this appendix are measured values of selected quality characteristics of ground waters in the North Coastal Area, as shown on the "Area Orientation Map". The Ground Water Quality Monitoring Program is based on systematic sampling of a predetermined network and is reported annually by water year. The Ground Water Quality Monitoring Program is performed in cooperation with other state, local, and federal agencies.

All data presented in this volume are within the North Coastal Water Pollution Control Region (No. 1) excluding the Russian River drainage basin and the area along the coast south of the Mattole River drainage. Wells sampled in the ground water quality program are arranged by basin and tabulated in sequence by township, range, and section. The nine ground water basins sampled annually in the North Coastal Area are shown on Plate 4.

The Ground Water Quality Monitoring Program consists of selecting locations to be sampled, collection of samples by Department personnel or cooperators, laboratory analysis by an assigned agency, examination of the data to note trends or significant changes, and publication of the data and findings.

Except where noted, tabulated values for temperature are those measured in the field at the time of sampling. Comments on local conditions are noted in the field books but are not included in the tabulation.

Tabulated values for dissolved minerals are the analytical quantity reported in parts per million (ppm) and a computed value for equivalents per million (epm). Electrical conductivity is reported as micromhos at 25°C and temperature is in degrees Fahrenheit. Laboratory analyses of ground waters were performed in the Department's Chemical Laboratory at Bryte, in accordance

with "Standard Methods for the Examination of Water and Waste Water", Eleventh Edition, or by the USGS. The methods yield comparable accuracy of analysis. The determination of trace elements was performed by the "wet" analysis at the Bryte Laboratory. The results are reported in parts per billion.

Analyses for radioactivity were made by the California Disaster Office Laboratory in Sacramento and results are expressed in terms of activity, measured in micro-micro curies per liter (mmc/l) which is equiv- to pico-curies per liter (pc/l). The most probable error is reported with the measured value. Other values are reported in parts per million or are stated in table headings.

Results of bacterial, radiological, and organic determinations presented in this bulletin should be considered qualitative and undue emphasis should not be given to the quantitative values.

Quality information for most wells in the monitoring program is augmented by well logs and well construction information.

Well Numbering System

The State well numbering system used in this report is based on the township, range, and section subdivision of the Public Land Survey. It is the system used in all ground water investigations and for numbering all wells for which data are published or filed by the Department of Water Resources. In this report the number of a well, assigned in accordance with this system, is referred to as the State Well Number and is described in Appendix C of this bulletin.

TABLE E-1

ANALYSES OF GROUND WATER

1963

Owner and use	State well number and other number	Date sampled	Temp in °F	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents[d]	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C. ppm	Analyzed by c
						NORTH COASTAL REGION (No. 1)																	
						SMITH RIVER PLAIN (1-1)																	
	HB&M																						
A. Short domestic	16N/1W-28Q1	7-10-63	--	227	8.0	16 / 0.80	10 / 0.82	17 / 0.74	0.3 / 0.01	0.0 / 0.00	125 / 2.05	1.0 / 0.02	8.2 / 0.23	3.0 / 0.05	0.2 / 0.01	0.1	29		154	32	31	0	LL
L. L. Early domestic	-19C1	7-10-63	--	61	6.7	3.2 / 0.16	2.4 / 0.04	8.5 / 0.24	0.4 / 0.01	0.0 / 0.00	18 / 0.30	5.4 / 0.09	11 / 0.31	0.0 / 0.00	0.1 / 0.01	0.0	12		58	37	20	0	LL
W. Storey domestic	-20H1	7-10-63	--	158	7.3	3.7 / 0.18	8.3 / 0.68	14 / 0.61	1.5 / 0.02	0.0 / 0.00	55 / 0.87	6.6 / 0.14	16 / 0.45	16 / 0.26		0.1			90	41	42	13	DWR
G. Labarra irrigation	17N/1W-4J1	9-13-63	--	363	7.5	5.0 / 0.25	28 / 2.27	4.4 / 0.19	0.5 / 0.02	0.0 / 0.00	147 / 2.41	1.6 / 0.03	8.8 / 0.25	1.2 / 0.02		0.1			142	7	128	8	DWR
Redwood School domestic	-14C1	7-10-63	--	251	8.2	27 / 1.36	9.0 / 0.74	16 / 0.70	1.4 / 0.04	0.0 / 0.00	143 / 2.35	0.1 / 0.19	9.0 / 0.26	2.8 / 0.04	0.1 / 0.01	0.1	24		154	25	105	0	LL
F. Mellow irrigation	-20C1	9-12-63	--	116	7.4	4.8 / 0.24	6.3 / 0.52	6.4 / 0.28	0.4 / 0.01	0.0 / 0.00	44 / 0.72	0.6 / 0.01	7.8 / 0.22	2.6 / 0.04		0.0			74	27	38	2	DWR
R. W. Struebing domestic	18N/1W-5G1	7-10-63	--	155	7.0	9.4 / 0.45	3.5 / 0.27	21 / 0.90	0.6 / 0.01	0.0 / 0.00	15 / 0.25	1.0 / 0.02	37 / 1.04	14 / 0.23	0.8 / 0.01	0.0	9		108	55	36	24	LL
M. J. Sierka domestic	-17R1	7-10-63	--	460	7.5	6.4 / 0.32	16 / 1.37	86 / 3.83	1.3 / 0.03	0.0 / 0.00	145 / 2.55	6.8 / 0.12	20 / 0.56	0.0 / 0.00	0.8 / 0.01	0.1	27		274	70	85	0	LL
M. J. Sierka domestic	-17R2	7-10-63	--	142	8.0	14 / 0.70	1[illegible] / 0.83	11 / 0.47	0.2 / 0.01	0.0 / 0.00	102 / 1.67	[illegible] / 0.00	11 / 0.30	0.0 / 0.00	0.8 / 0.01	0.0	23		116	24	75	0	LL
N. C. Jepson domestic and stock	-34M2	7-10-63	--	405	8.3	22 / 1.10	35 / 2.90	3.4 / 0.17	0.8 / 0.02	3 / 0.10	223 / 3.65	4.8 / 0.10	6.1 / 0.17	8.3 / 0.13	0.1 / 0.01	0.0	33		286	41	148	11	LL
	MD&M					BUTTE VALLEY (1-3)																	
R. Cheyne irrigation	46N 1W-2F1	7-13-63	56	385	6.0			4.[illegible] / 1.67		0.[illegible] / 0.00	[illegible]21 / 3.[illegible]		4.0 / 0.11								1[illegible]		DWR
G. W. Osburn & Son irrigation	-17B1	9-12-63	64	341	8.2	1.[illegible] / 0.[illegible]	1[illegible] / 1.25	[illegible]1 / 1.35	4.1 / 0.10	9.6 / 0.32	206 / 3.36	3.1 / 0.06	4.4 / 0.12	1.[illegible] / 0.02		0.0		Al 0.08 Mn 0.01	204	37	110	0	DWR
R. Robinson municipal	-17L1	1-31-63	--	429	6.5	40 / 2.00	25 / 2.07	18 / 0.78	4.6 / 0.11	12 / 0.40	244 / 4.00	14 / 0.29	8.4 / 0.08	2.0 / 0.03	0.2 / 0.01	0.00	22	Fe 0.[illegible] (total) Pb 0.00 Zn 0.07	277	16	203	3	DWR
K. Holbrook irrigation	47N/1E-32A1	7-12-63	68	303	7.7	28 / 1.22				0.0 / 0.00	113 / 1.85		5.0 / 0.14								34		DWR

a Determined by addition of constituents.
b. Gravimetric determination.
c Analysis by U.S. Geological Survey, Quality of Water Branch (U.S.G.S.), Pacific Chemical Consultants (P.C.C.), Lein Laboratory (L.L.), Terminal Testing Laboratory (T T L) or State Department of Water Resources (D W R) as indicated
d. Iron (Fe), Aluminum (Al), Arsenic (As), Copper (Cu), Lead (Pb), Manganese (Mn), Zinc (Zn), reported here as $\frac{0.0}{0.00}$ except as shown

SPO

TABLE E-1 (Continued)

ANALYSES OF GROUND WATER

1963

Owner and use	State well number and other number	Date sampled	Temp in °F	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents[d]	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C. ppm	Analyzed by c
	MDWM					BUTTE VALLEY (1-5) (Cont.)																	
[illegible] Well Domestic	[illegible]	[illegible]-63	--	267	7.0	7.4 / 0.369	4.7 / 0.387	28 / 1.22	7.4 / 0.189	0.0 / 0.000	113 / 1.84	1.6 / 0.032	7.8 / 0.220	5.2 / 0.08		.7		Fe 0.47 (total) Al 0.06 Pb 0.05 Zn 0.31	154	56	39	0	DWR
Butte Valley Farms Irrigation	[illegible]	[illegible]-63	55	403	8.0	43 / 2.15	24 / 1.97	39 / 1.70	13 / 0.33	2.0 / 0.067	220 / 3.60	12 / 0.25	11 / 0.31	12 / 0.19	0.6 / 0.03	0.4	60		417	56	130	0	USGS
[illegible] Creek [illegible] (domestic/[illegible] no 1)	47N 3W- 4D1	1-28-63	50	214	8.3	24 / 1.20	14 / 1.20	20 / 0.87	4.6 / 0.12	0.0 / 0.00	100 / 1.64	1.2 / 0.05	2.4 / 0.04	0.1 / 0.00	0.02	.4		Fe 0.02 (total) Al 0.06	189	25	120	0	DWR
		4-11-63	54	245	8.3	21 / 1.04	14 / 1.15	20 / 0.87	1.9 / 0.05	1 / 0.03	114 / 1.87	1.4 / 0.03	4.3 / 0.12	2.4 / 0.04	0.1 / 0.01	0.1	18		180	26	110	0	LL
E. W. Huffman Domestic	[illegible]	1-[illegible]-63	50	145	7.9	11 / 0.55	5.7 / 0.47	6.4 / 0.28	2.3 / 0.06	0.0 / 0.00	72 / 1.18	1.6 / 0.03	1.4 / 0.05	2.6 / 0.04	0.2 / 0.01	0.07	45	Fe 0.02 (total) Al 0.13 Cu 0.01 Zn 0.09	116	20	51	0	DWR
		4-12-63	--	124	7.7	8.4 / 0.42	4.0 / 0.33	6.1 / 0.27	2.3 / 0.06	0.0 / 0.00	67 / 1.10	4.4 / 0.09	1.0 / 0.03	2.3 / 0.04	0.1 / 0.01	0.0	31		102	32	45	0	LL
[illegible] Irrigation	[illegible]	8-13-63	55	339	8.4	49 / 2.45	23 / 1.89	46 / 2.00	7.5 / 0.19	3 / 0.10	200 / 3.28	4.80 / 0.10	3.5 / 0.10	11.6 / 0.01	0.1 / 0.01	0.1	42		232	28	127	0	LL
[illegible] Well Water Well	[illegible]	1-30-63	--	318	8.3	16 / 0.80	13 / 1.08	81 / 3.41	7.4 / 0.19	3.0 / 0.10	167 / 2.74	16 / 0.33	2.8 / 0.10	8.4 / 0.04	0.4 / 0.02	0.02	41	Zn 0.01	205	27	114	0	DWR
		8-28-63	--	341	8.3	17 / 0.85	13 / 1.07	83 / 1.06	7.9 / 0.20	2 / 0.07	174 / 2.85	16 / 0.33	8.9 / 0.25	8.8 / 0.14	0.2 / 0.01	0.1	20		210	27	123	0	LL
[illegible] Products Domestic Industrial	[illegible]	1-22-63	--	1190	8.9	27 / 1.35	17 / 1.42	175 / 7.60	27 / 0.69	22 / 0.73	797 / 13.05	82 / 1.67	26 / 0.73	7.7 / 0.12	0.4 / 0.02	0.26	55	Cu 0.01 Zn 0.01	782	52	304	0	DWR
N. M. L. Creek Farm	[illegible]	8-20-63	--	370	8.4	43 / 2.17	15 / 1.22	40 / 1.73	7.0 / 0.18	3 / 0.10	205 / 3.33	4.8 / 0.10	5.0 / 0.14	8.0 / 0.03	0.2 / 0.01	0.1	50		270	27	145	0	LL
						SHASTA VALLEY (1-4)																	
F. Spada Domestic	[illegible]	4-15-63	--	340	8.2	17 / 0.75	22 / 1.81	83 / 1.00	2.5 / 0.06	0.0 / 0.00	244 / 3.33	1.2 / 0.02	4.2 / 0.13	1.4 / 0.02		0.1		Fe 1.6 (total) Al 0.14 As 0.01 Cu 0.21 Pb 0.03 Zn 0.12	211	27	128	0	DWR
G. G. Maxwell Domestic	[illegible]	4-11-63	--	550	8.4	11 / 0.55	70 / 5.76	4.0 / 0.17	0.4 / 0.01	12 / 0.40	341 / 5.59	3.1 / 0.06	3.4 / 0.10	6.7 / 0.11		0.0		Fe 0.01 (total) Al 0.48 Cu 0.03 Pb 0.02 Zn 0.07	294	3	314	16	DWR

a. Determined by addition of constituents
b. Gravimetric determination.
c. Analyses by U.S. Geological Survey, Quality of Water Branch (U.S.G.S.), Pacific Chemical Consultants (P.C.C.), Lein Laboratory (L.L.), Terminal Testing Laboratory (T.T.L.) or State Department of Water Resources (D.W.R.) as indicated.
d. Iron (Fe), Aluminum (Al), Arsenic (As), Copper (Cu), Lead (Pb), Manganese (Mn), Zinc (Zn), reported here as 0.0/0.00 except as shown

TABLE E-1 (Continued)

ANALYSES OF GROUND WATER

1963

Owner and use	State well number and other number	Date sampled	Temp in °F	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents[d]	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C. ppm	Analyzed by c
	MDR&M							SHASTA VALLEY (1-4) (Cont.)															
Big Springs Irrigation District irrigation	43N/5W-2C1	9-11-63	53	290	8.0			20 / 0.87		0.0 / 0.00	147 / 2.41		11 / 0.31								1[illegible]		DWR
J. C. Martin irrigation	44N/4W-6M1	9-11-63	57	512	8.0			48 / 2.09		0.0 / 0.00	272 / 4.46		21 / 0.59								[illegible]		DWR
S. D. Nelson domestic and irrigation	44N/5W-32F1	9-11-63	--	473	8.5	41 / 2.05	20 / 1.77	74 / 3.22	3.8 / 0.10	22 / 0.73	400 / 6.56	10 / 0.20	60 / 1.69	4.6 / 0.07		0.9		Fe 0.01 (total) Al 0.00 Ac 0.01 Pb 0.01 Zn 0.10	368	[illegible]	201	[illegible]	DWR
C. Stone domestic	44N/6W-22K1	9-11-63	--	388	7.1	45 / 2.24	14 / 1.14	15 / 0.65	1.0 / 0.03	0.0 / 0.00	201 / 3.30	6.9 / 0.14	13 / 0.37	10 / 0.16		0.1		Fe .1 (total) Al 0.1 Ac 0.1 Pb 0.1 Zn 0.0	325	16	169	4	DWR
Siskiyou County Airport	45N/5W-6E1	9-11-63	--	890	8.4	7.1 / 0.35	8.1 / 0.67	198 / 8.61	1.8 / 0.05	6 / 0.20	516 / 8.46	0.3 / 0.01	26 / 0.73	2.1 / 0.03		7.1		Fe 0.20 (total) Cu 0.01 Zn 0.06	543	84	91		DWR
G. Weldon domestic	45N/6W-19R1	9-11-63	--	505	8.2			30 / 1.30		0.0 / 0.00	251 / 4.11		4.4 / 0.12								[illegible]		DWR
								SCOTT RIVER VALLEY (1-5)															
C. W. Black irrigation	42N/9W-2G1	9-10-63	--	539	7.9			7.7 / 0.33		0.0 / 0.00	301 / 5.06		7.7 / 0.22								[illegible]		DWR
W. H. Landen domestic	-27K1	9-10-63	59	56	7.2	6.8 / 0.34	1.5 / 0.12	6.2 / 0.10	0.3 / 0.01	0.0 / 0.00	74 / 0.57	1.1 / 0.02	10.0 / 0.28	0.4 / 0.01	0.1 / 0.01	0.1	11			50	18	[illegible]	LL
F. Lockensmeyer	43N/9W-8F1	9-10-63	--	141	7.6	19 / 0.95	2.0 / 0.31	3.8 / 0.16	0.4 / 0.01	0.0 / 0.00	76 / 1.26	0.8 / 0.02	6.4 / 0.18	2.1 / 0.03		0.0		Fe 0.00 (total) Al 0.00 Cl 0.0 Zn 0.13	97	11	[illegible]	[illegible]	DWR
L. L. Lukes irrigation	-24F2	9-10-63	56	433	8.1			4.7 / 0.20		0.0 / 0.00	274 / 4.49		4.3 / 0.12								[illegible]		DWR
W. Broger domestic	-28D2	9-10-63	--	57	7.9	5.2 / 0.26	1.8 / 0.15	3.0 / 0.13	0.7 / 0.02	0.0 / 0.00	58 / 0.95	1.6 / 0.03	0.0 / 0.00	1.1 / 0.02		0.0		Fe 0.02 (total) Pb 0.01 Zn 0.01	64	[illegible]	[illegible]	[illegible]	DWR
Miller domestic	43N/10W-14B1	9-10-63	64	86	7.0	8.2 / 0.41	4.6 / 0.37	5.2 / 0.23	0.6 / 0.02	0.0 / 0.00	48 / 0.79	2.4 / 0.05	0.0 / 0.00	0.4 / 0.01		0.0		Fe 0.06 (total) Al 0.01 Cu 0.0 Zn 0.0	58	11	[illegible]	[illegible]	DWR
O. E. Heinke domestic and stock	44N/6W-34R1	9-10-63	58	316	8.0			5.4 / 0.26		0.0 / 0.00	172 / 2.84		2.8 / 0.08								1[illegible]		DWR

a Determined by addition of constituents.
b. Gravimetric determination.
c Analysis by U.S. Geological Survey, Quality of Water Branch (U.S.G.S.), Pacific Chemical Consultants (P.C.C.), Levin Laboratory (L.L.), Terminal Testing Laboratory (T.T.L.) or State Department of Water Resources (D.W.R.) as indicated.
d. Iron (Fe), Aluminum (Al), Arsenic (As), Copper (Cu), Lead (Pb), Manganese (Mn), Zinc (Zn), reported here as $\frac{0.0}{0.00}$ except as shown

TABLE E-1 (Continued)

ANALYSES OF GROUND WATER

1963

Owner and use	State well number and other number	Date sampled	Temp in °F	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents[d]	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C ppm	Analyzed by[c]
	MDB&M							HAYFORK VALLEY (1-6)															
H. A. [illegible] domestic and irrigation	1N 11W-9M1	7-1-63	61	155	7.0	14 / .70	6.4 / .53	9.3 / .40	1.4 / .04	0 / 0	76 / 1.25	6.5 / .14	4.7 / .13	12.0 / .19		0.1		Fe .04 (total) Al .2 Cu .1 Pb .1 Zn .2	96	15	58	0	LWH
L. Hess domestic	1N 1W-14A1	7-1-63	60	278	6.9	36 / 1.79	11 / .90	25 / 1.1	2.2 / .06	0 / 0	167 / 2.74	4.4 / .09	1.4 / .04	0.1 / .002		0.1		Fe .03 (total) Al .11 Cu .1 Pb .1 Zn .2	153	31	141	0	LWH
J. Dempsey domestic	1 E1	7-10-63	64	147	7.1	17 / .85	10 / .82	10.8 / .47	0.7 / .02	0 / 0	105 / 1.72	6.4 / .13	6.1 / .17	2.4 / .04		0.1		Fe .03 (total) Al .2 Cu .1 Pb .1 Zn .2	110	17	75	0	LWH
Arcata Branch domestic	-15K1	7-10-63	58	240	7.0	28 / 1.40	15 / 1.23	11.0 / .48	0.5 / .01	0 / 0	140 / 2.30	8 / .17	5.5 / .16	6.0 / .10		0.1		Fe .03 (total) Zn .07	165	15	134	0	LWH
J. R. Morris domestic	5N/11W-9G1	7-10-63	63	174	7.0	24 / 1.20	11 / .90	14 / .61	2.4 / .06	0 / 0	100 / 1.64	5.0 / .10	12 / .34	4 / .06		0.10		Fe .03 (total) Zn .10	132	17	104	9	LWH
	MDB&M							MAD RIVER VALLEY (1-5)															
Lone Portland Lumber industrial	5N 1E-2K1	8-20-63	61	201	7.0			17 / .74		0 / 0	120 / 1.97		18 / .51								0		LWH
P. Coleman domestic and irrigation	4N 1E-7M1	8-20-63	63	167	7.2			16 / .70		0 / 0	98 / 1.61		16 / .45								0		LWH
C. Barber domestic	-9H1	7-29-63	64	156	7.1	17 / .85	9.1 / .75	14 / .61	2.1 / .05	0 / 0	94 / 1.54	1.0 / .02	17 / .48	3.1 / .05	.1 / .01	0.2	22		140	21	74	11	LWH
Iverson irrigation	-17D1	5-1-63	63	143	7.2			11 / .48		0 / 0	70 / 1.15		11 / .31								11		LWH
N. Halverson domestic and stock	-18K1	8-20-63	--	380	7.3			10 / .43		0 / 0	230 / 3.77		11 / .31								142		LWH
P. North domestic and irrigation	-24D1	5-1-63	59	202	7.2			9.4 / .41		0 / 0	120 / 1.97		11 / .31								77		LWH
Arcata Elyard Plant industrial	-2E1	8-20-63	61	178	7.2			1.11 / .05		0 / 0	77 / 1.26		1.25 / .04								5		LWH
Arc Bolt Farm domestic and irrigation	6N/1W-1H1	7-29-63	64	167	7.3			10 / .43		0 / 0	89 / 1.46		10 / .28								0		LWH
G. A. Curtis domestic	7N/1E-13Q1	8-21-63	61	101	7.3	5.6 / .28	1.7 / .14	11.0 / .48	0.6 / .02	0 / 0	48 / .79	1.5 / .03	1.5 / .04	2.4 / .04		0.1		Fe .04 (total) Al .2 Mn .1	56	54	20	9	LWH

a Determined by addition of constituents
b. Gravimetric determination.
c Analysis by U.S. Geological Survey, Quality of Water Branch (U.S.G.S.), Pacific Chemical Consultants (PCC), In-In Laboratory (I.-I.), Terminal Testing Laboratory (T.T.L.) or State Department of Water Resources (D.W.R.) as indicated
d. Iron (Fe), Aluminum (Al), Arsenic (As), Copper (Cu), Lead (Pb), Manganese (Mn), Zinc (Zn), reported here as $\frac{0.0}{0.00}$ except as shown

TABLE E-1 (Continued)

ANALYSES OF GROUND WATER

1963

Owner and use	State well number and other number	Date sampled	Temp in °F	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents[d]	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C ppm	Analyzed by c
	HN&M								MAD RIVER VALLEY (1-5) (Cont.)														
T. Galaty domestic	-30B1	8-1-63	65	109	7.1	0.50 / 0.25	0.1 / 0.07	8.0 / 0.35	0.4 / 0.01	0.0 / 0.00	48 / 0.92	12 / 0.25	9.7 / 0.16	13 / 0.21	0.1 / 0.01	0.0	20		90	34	36	10	LL
									EUREKA PLAIN (1-4)														
J. Christiansen irrigation	5N 1W-5K1	8-20-63	58	128	7.4	7.0 / 0.35	2.1 / 0.20	14 / 0.60	0.8 / 0.02	0.0 / 0.00	55 / 0.90	3.6 / 0.07	1.5 / 0.04	0.0 / 0.00	0. / 0.01	0.0	25		104	4	28	0	LL
Pacific Gas & Electric industrial	4N 1W-8H1	8-20-63	65	168	7.8	0.4 / 0.02	0.1 / 0.01	11 / 0.48	1.5 / 0.04	0.0 / 0.00	65 / 1.07	3.1 / 0.06	1.6 / 0.04	1. / 0.02		0.0		Fe 0.00 (total) Al 0.10 Zn 0.01	93	84	56	0	DWR
P. Lorenzen irrigation	-16H1	8-20-63	57	480	8.1	38 / 1.90	27 / 2.18	53 / 2.30	5.6 / 0.14	0.0 / 0.00	275 / 4.51	0.0 / 0.00	28 / 0.78	0.0 / 0.00	0.1 / 0.01	0.1	37		388	59	203	6	LL
Pacific Gas & Electric industrial	-17B1	8-20-63	64	171	7.6	7.0 / 0.37	2.2 / 0.21	14 / 0.62	1.5 / 0.04	0.0 / 0.00	67 / 1.10	3.2 / 0.07	1.5 / 0.02	1.4 / 0.02		0.0		Fe 0.00 (total) Al 0.11 As 0.01 Mn 0.01 Zn 0.01	98	32	54	0	DWR
Arcata Redwood Co. domestic and industrial	5N/1E-18Q1	8-20-63	62	872	8.0	12 / 0.60	10 / 1.00	150 / 6.52	4.0 / 0.10	14 / 0.47	310 / 5.10	1.0 / 0.02	110 / 3.10	0.3 / 0.00	0.1 / 0.01	1.6	60		670	74	104	0	USGS
L. L. Spinney domestic and stock	-19A1	8-20-63	57	277	7.0	24 / 1.20		0.0 / 0.00			108 / 1.77		41 / 0.77								86		DWR
									EEL RIVER VALLEY (1-10)														
A. Capeul irrigation	7N. 1W 4D1	7-21-63	57	0.0	0.0	4. / 0.20				0.0 / 0.00	13 / 0.2		0.5 / 0.07								16		
E. Calzanchini irrigation	-7F1	8-20-63	--	4.0	0.0	0. / 1.01	2.1 / 0.20	12 / 0.50	1.6 / 0.04	0.0 / 0.00	1.2 / 0.11	5.0 / 1.00	0. / 0.00	0.0 / 0.00	0. / 0.01	0.1	0.1		178	17	0.0	14	LL
E. Johnsen domestic and irrigation	-17F1	8-20-63	--	178	0.0	10 / 0.50	0.0 / 0.00	15 / 0.57	1.6 / 0.04	0.0 / 0.00	84 / 1.38	7.4 / 0.15	0.0 / 0.00	1.6 / 0.02	0.0 / 0.00	0.0	0.0		128	50	58	0	USGS
C. Anderson irrigation	-18A1	8-24-63	--	557	8.2			110 / 4.78		0.0 / 0.00	0.0 / 0.00		0.0 / 0.00								202		DWR
[illegible] irrigation	8N 1W- [illegible]	8-[illegible]-63	--	0.0	0.0			29 / 1.26		0.0 / 0.00	0.0 / 0.00		1.0 / 0.03								0.0		DWR
[illegible] irrigation	-20H1	8-[illegible]-63	--	402	7.8			0.7 / 0.02		0.0 / 0.00	244 / 0.00		1. / 0.04								241		DWR

a Determined by addition of constituents
b Gravimetric determination
c Analysis by U.S. Geological Survey, Quality of Water Branch (U.S.G.S.), Pacific Chemical Consultants (P.C.C.), L in Laboratory (L.L.), Terminal Testing Laboratory (T.T.L.) or State Department of Water Resources (D.W.R.) as indicated
d Iron (Fe), Aluminum (Al), Arsenic (As), Copper (Cu), Lead (Pb), Manganese (Mn), Zinc (Zn), reported here as $\frac{a.a}{0.0a}$ except as shown

SPO

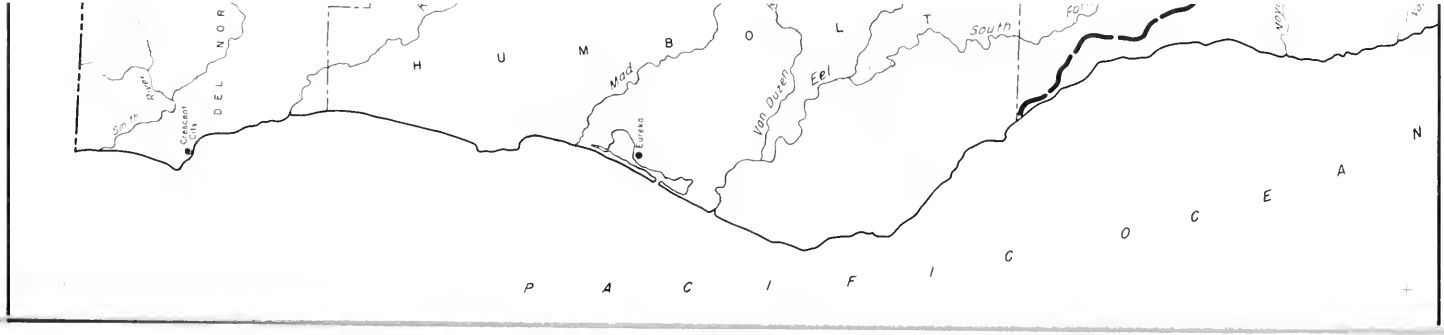
TABLE E-1 (Continued)

ANALYSES OF GROUND WATER

1963

Owner and use	State well number and other number	Date sampled	Temp in °F	Specific conductance (micromhos at 25° C)	pH	Mineral constituents in parts per million / equivalents per million: Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Carbonate (CO_3)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Fluoride (F)	Boron (B)	Silica (SiO_2)	Other constituents[d]	Total dissolved solids in ppm	Percent sodium	Hardness as $CaCO_3$: Total ppm	Hardness as $CaCO_3$: N.C. ppm	Analyzed by[c]
	HD&M							EEL RIVER VALLEY (1-10) (Cont.)															
J. V. [illegible] irrigation	5N/2W-2A2	8-28-63	--	2220	8.0	85 / 4.24	24 / 1.97	198 / 8.61	3.7 / 0.07	0.0 / 0.00	84 / 1.38	20 / 0.00	648 / 18.28	4.3 / 0.07	0.1 / 0.01	0.0	19		1290	42	600	531	USGS
E. E. Tanferani irrigation	-15J1	9-5-63	--	3390	7.7			204 / 8.87		0.0 / 0.00	254 / 4.16		753 / 26.80								1190		DWR
R. M. Christiansen irrigation	-27Q1	9-5-63	--	7590	8.1	180 / 8.98	292 / 24.02	956 / 41.32	24 / 0.61	0.0 / 0.00	216 / 3.54	137 / 2.85	2300 / 67.42	7.6 / 0.12	0.2 / 0.01	0.1	27		4260	55	1650	1473	USGS
F. C. Lorenzen irrigation	-35M1	8-5-63	--	1390	8.2			100 / 4.35		0.0 / 0.00	258 / 4.23		296 / 8.35								435		DWR
	MDB&M							ROUND VALLEY (1-11)															
W. B. Moody domestic and irrigation	22N/12E-6L2	9-63	--	275	7.8	27 / 1.35	11 / 0.87	14 / 0.60	0.5 / 0.01	0.0 / 0.00	156 / 2.57	2.4 / 0.06	2.5 / 0.07	2.8 / 0.05	0.1 / 0.01	0.1	20		152	21	111	0	LL
A. D. Pellingham irrigation	-19F1	9-63	--	490	8.2	36 / 1.78	46 / 3.81	12 / 0.50	0.4 / 0.01	0.0 / 0.00	336 / 5.50	22 / 0.45	1.4 / 0.04	2.5 / 0.04	0.1 / 0.01	0.1	21		322	8	280	5	LL
R. T. Hurt domestic and irrigation	22N/13E-12K1	9-63	--	340	7.7	33 / 1.63	16 / 1.28	22 / 0.95	0.4 / 0.01	0.0 / 0.00	221 / 3.62	4.3 / 0.09	5.3 / 0.15	0.0 / 0.00	0.2 / 0.01	0.1	18		222	25	145	0	LL
F. F. Rohrbough domestic	-15A1	9-63	--	230	8.1	26 / 1.30	11 / 0.89	8.9 / 0.39	0.7 / 0.02	0.0 / 0.00	152 / 2.50	2.4 / 0.06	3.2 / 0.09	0.8 / 0.01	0.1 / 0.01	0.1	15		144	15	110	0	LL
G. Cravier irrigation	23N 12W-31N1	9-63	--	255	8.2	22 / 1.00	7.5 / 0.62	11 / 0.48	0.7 / 0.02	0.0 / 0.00	137 / 2.25	11 / 0.22	3.6 / 0.27	1.2 / 0.02	0.1 / 0.01	0.1	17		148	18	111	0	LL
E. Bauer domestic and irrigation	-33L1	9-63	--	600	8.0	67 / 3.34	30 / 2.49	32 / 1.40	0.3 / 0.01	0.0 / 0.00	432 / 7.08	3.4 / 0.07	3.5 / 0.10	3.5 / 0.06	0.6 / 0.03	0.2	27		372	19	292	0	LL
W. Clark domestic and irrigation	23N/13E-25P1	9-63	--	228	8.1	30 / 1.50	8.2 / 0.67	6.0 / 0.22	0.8 / 0.02	0.0 / 0.00	128 / 2.10	11 / 0.23	3.5 / 0.10	2.4 / 0.04	0.1 / 0.01	0.0	11		140	9	108	3	LL
C. A. Gray irrigation	-36P2	9-63	--	240	8.1	26 / 1.27	11 / 0.92	6.6 / 0.29	2.3 / 0.06	0.0 / 0.00	130 / 2.13	4.8 / 0.10	4.6 / 0.13	10 / 0.16	0.1 / 0.01	0.0	12		146	12	110	4	LL

a. Determined by addition of constituents.
b. Gravimetric determination.
c. Analysis by U.S. Geological Survey, Quality of Water Branch (U.S.G.S.), Pacific Chemical Consultants (P.C.C.), Lein Laboratory (L.L.), Terminal Testing Laboratory (T.T.L.) or State Department of Water Resources (D.W.R.) as indicated.
d. Iron (Fe), Aluminum (Al), Arsenic (As), Copper (Cu), Lead (Pb), Manganese (Mn), Zinc (Zn), reported here as $\frac{a.a}{a.aa}$ except as shown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DEL NOR
HUMBOLT
Mad
Eureka
Van Duzen
Eel
South
Fork
PACIFIC OCEAN

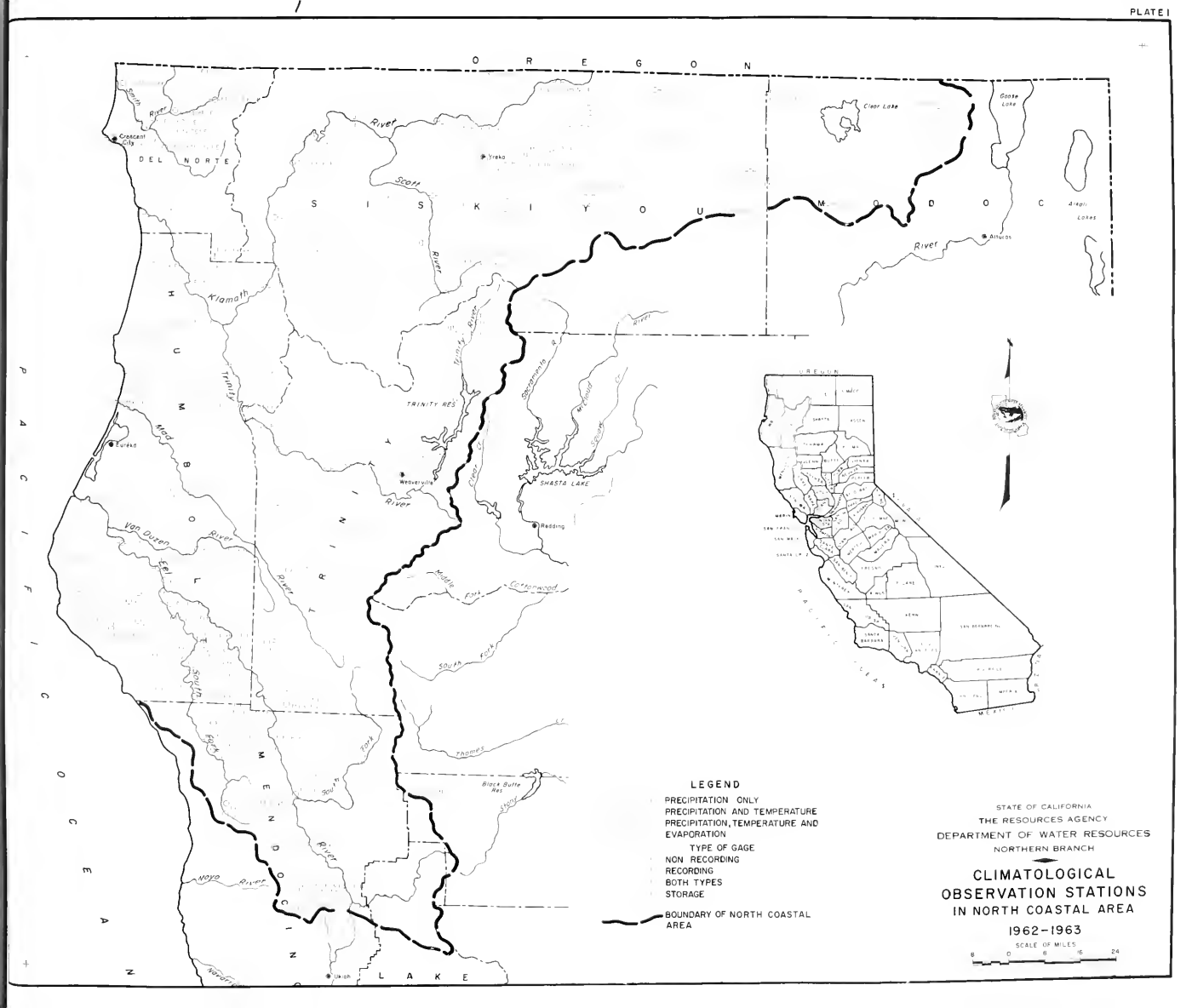

OREGON
Crescent City
DEL NORTE
Smith River
Yreka
Scott River
SISKIYOU
Klamath River
HUMBOLDT
Trinity River
TRINITY RES.
Eureka
Weaverville
Mad River
Van Duzen River
Eel River
South Fork
Middle Fork
Redding
Sacramento R.
McCloud R.
Pit River
Clear Lk.
SHASTA LAKE
Cedar Lake
Goose Lake
MODOC
Alturas
Alkali Lakes
Thomes Cr.
Black Butte Res.
MENDOCINO
Noyo River
Ukiah
LAKE
PACIFIC OCEAN
LEGEND
PRECIPITATION ONLY
PRECIPITATION AND TEMPERATURE
PRECIPITATION, TEMPERATURE AND EVAPORATION
TYPE OF GAGE
NON RECORDING
RECORDING
BOTH TYPES
STORAGE
BOUNDARY OF NORTH COASTAL AREA
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
NORTHERN BRANCH
CLIMATOLOGICAL OBSERVATION STATIONS IN NORTH COASTAL AREA
1962-1963
SCALE OF MILES
0 8 16 24

PLATE 3

INDEX TO STATIONS

1 Little Shasta River near Montague
2 Shasta River at Edgewood
3 Etna Creek near Etna
4 Moffett Creek near Fort Jones
5 Browns Creek near Douglas City
6 Weaver Creek near Douglas City
7 North Fork Trinity River at Helena
8 Big Creek near Hayfork

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
NORTHERN BRANCH

SURFACE WATER MEASUREMENT STATIONS IN NORTH COASTAL AREA 1962 - 1963

SCALE OF MILES
0 8 16

EX OF GROUND WATER BASINS

Smith River Plain
Butte Valley
Shasta Valley
Scott River Valley
Hayfork Valley
Mad River Valley
Eureka Plain
Eel River Valley
Round Valley
Laytonville Valley
Little Lake Valley

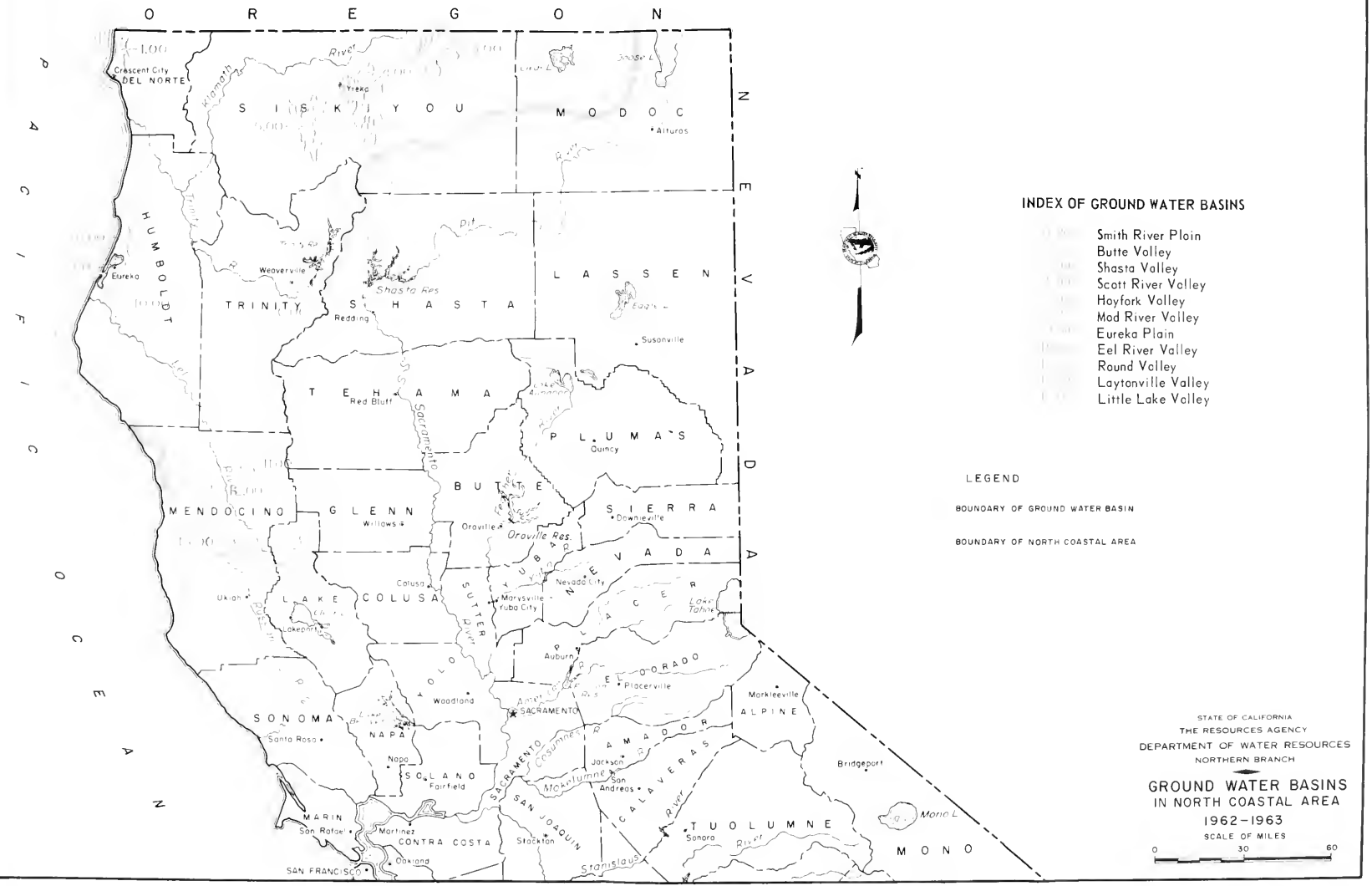
UND WATER BASIN

RTH COASTAL AREA

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
NORTHERN BRANCH

GROUND WATER BASINS
IN NORTH COASTAL AREA
1962-1963

SCALE OF MILES
0 30 60



INDEX OF GROUND WATER BASINS

1. Smith River Plain
2. Butte Valley
3. Shasta Valley
4. Scott River Valley
5. Hoyfork Valley
6. Mad River Valley
7. Eureka Plain
8. Eel River Valley
9. Round Valley
10. Laytonville Valley
11. Little Lake Valley

LEGEND

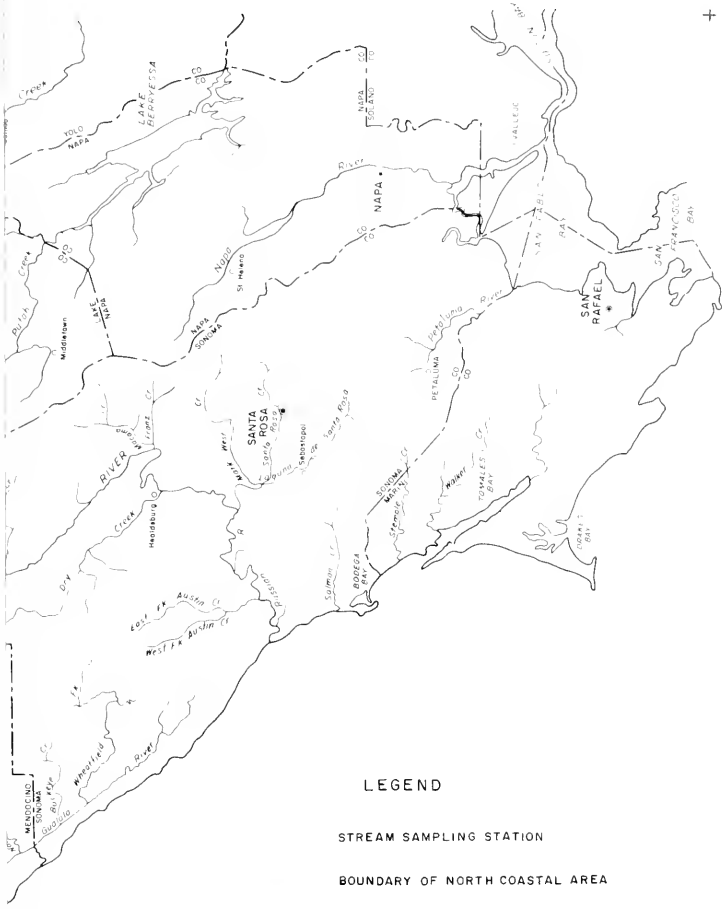
BOUNDARY OF GROUND WATER BASIN

BOUNDARY OF NORTH COASTAL AREA

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
NORTHERN BRANCH

GROUND WATER BASINS IN NORTH COASTAL AREA 1962–1963

SCALE OF MILES
0 30 60



STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
NORTHERN BRANCH

SURFACE WATER QUALITY MONITORING STATIONS IN NORTH COASTAL AREA 1962–1963

SCALE OF MILES

8 0 8 16

PLATE 5

INDEX TO STATIONS

1a	Shasta River near Yreka
1b	Scott River near Fort Jones
1c	Klamath River above Hamburg Reservoir Site
1d	Butte Creek near MacDoel
1e	Antelope Creek near Tennant
1f	Klamath River below Iron Gate Dam
2	Klamath River at Somesbar
2a	Salmon River at Somesbar
2b	Klamath River near Seiad Valley
3	Klamath River near Klamath
3a	Smith River near Crescent City
3b	Redwood Creek at Orick
4	Trinity River near Hoopa
4a	Trinity River at Lewiston
4b	Trinity River near Burnt Ranch
5	Eel River near McCann
5a	Van Duzen River near Bridgeville
5b	Outlet Creek near Longvale
5c	Eel River, Middle Fork at Dos Rios
5d	Eel River near Dos Rios
6	Eel River at Scotia
6a	Mad River near Arcata
7	Eel River, South Fork near Miranda
7a	Mattole River near Petrolia